

# Bin Duan

## List of Publications by Year in descending order

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81  
papers

4,899  
citations

100601

38  
h-index

107981

68  
g-index

87  
all docs

87  
docs citations

87  
times ranked

6979  
citing authors

#	ARTICLE	IF	CITATIONS
1	Electrospun conductive nanofiber yarns for accelerating mesenchymal stem cells differentiation and maturation into Schwann cell-like cells under a combination of electrical stimulation and chemical induction. <i>Acta Biomaterialia</i> , 2022, 139, 91-104.	4.1	56
2	Controllable fabrication of alginate/poly-L-ornithine polyelectrolyte complex hydrogel networks as therapeutic drug and cell carriers. <i>Acta Biomaterialia</i> , 2022, 138, 182-192.	4.1	17
3	Regulation of Schwann Cell and DRG Neurite Behaviors within Decellularized Peripheral Nerve Matrix. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 8693-8704.	4.0	15
4	Tri-layered and Gel-like Nanofibrous Scaffolds with Anisotropic Features for Engineering Heart Valve Leaflets. <i>Advanced Healthcare Materials</i> , 2022, 11, e2200053.	3.9	19
5	Exosomes derived from differentiated human ADMSC with the Schwann cell phenotype modulate peripheral nerve-related cellular functions. <i>Bioactive Materials</i> , 2022, 14, 61-75.	8.6	26
6	Dynamic hyaluronic acid hydrogel with covalent linked gelatin as an anti-oxidative bioink for cartilage tissue engineering. <i>Biofabrication</i> , 2022, 14, 014107.	3.7	46
7	State-of-the-art review of advanced electrospun nanofiber yarn-based textiles for biomedical applications. <i>Applied Materials Today</i> , 2022, 27, 101473.	2.3	66
8	Hydrogen Peroxide Scavenging Restores N-Type Calcium Channels in Cardiac Vagal Postganglionic Neurons and Mitigates Myocardial Infarction-Evoked Ventricular Arrhythmias in Type 2 Diabetes Mellitus. <i>Frontiers in Cardiovascular Medicine</i> , 2022, 9, 871852.	1.1	0
9	3D bioprinted white adipose model for in vitro study of cancer-associated cachexia induced adipose tissue remodeling. <i>Biofabrication</i> , 2022, 14, 034106.	3.7	9
10	3D bioprinting of multilayered scaffolds with spatially differentiated ADMSCs for rotator cuff tendon-to-bone interface regeneration. <i>Applied Materials Today</i> , 2022, 27, 101510.	2.3	13
11	Review of advances in electrospinning-based strategies for spinal cord regeneration. <i>Materials Today Chemistry</i> , 2022, 24, 100944.	1.7	36
12	Tannic acid-inspired, self-healing, and dual stimuli responsive dynamic hydrogel with potent antibacterial and anti-oxidative properties. <i>Journal of Materials Chemistry B</i> , 2021, 9, 7182-7195.	2.9	65
13	Large-scale synthesis of compressible and re-expandable three-dimensional nanofiber matrices. <i>Nano Select</i> , 2021, 2, 1566-1579.	1.9	7
14	Macrophage depletion in stellate ganglia alleviates cardiac sympathetic overactivation and ventricular arrhythmogenesis by attenuating neuroinflammation in heart failure. <i>Basic Research in Cardiology</i> , 2021, 116, 28.	2.5	26
15	Design and Evaluation of an In Vitro Mild Traumatic Brain Injury Modeling System Using 3D Printed Mini Impact Device on the 3D Cultured Human iPSC Derived Neural Progenitor Cells. <i>Advanced Healthcare Materials</i> , 2021, 10, e2100180.	3.9	13
16	The Prospect of Nanoparticle Systems for Modulating Immune Cell Polarization During Central Nervous System Infection. <i>Frontiers in Immunology</i> , 2021, 12, 670931.	2.2	3
17	Electrostatic Flocking of Insulative and Biodegradable Polymer Microfibers for Biomedical Applications. <i>Advanced Healthcare Materials</i> , 2021, 10, e2100766.	3.9	14
18	Tendon-bioinspired wavy nanofibrous scaffolds provide tunable anisotropy and promote tenogenesis for tendon tissue engineering. <i>Materials Science and Engineering C</i> , 2021, 126, 112181.	3.8	26

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19	Injectable, antioxidative, and neurotrophic factor-deliverable hydrogel for peripheral nerve regeneration and neuropathic pain relief. <i>Applied Materials Today</i> , 2021, 24, 101090.	2.3	17
20	Combining electrospinning with hot drawing process to fabricate high performance poly (L-lactic) Tj ETQq0 0 0 rgBT /Overlock, 10 Tf 50	3.7	32
21	Anisotropic scaffolds for peripheral nerve and spinal cord regeneration. <i>Bioactive Materials</i> , 2021, 6, 4141-4160.	8.6	71
22	3D Printed Hydrogels with Aligned Microchannels to Guide Neural Stem Cell Migration. <i>ACS Biomaterials Science and Engineering</i> , 2021, 7, 690-700.	2.6	30
23	The effects of maturation and aging on the rotator cuff tendonâ€œbone interface. <i>FASEB Journal</i> , 2021, 35, e22066.	0.2	9
24	Electrospun thymosin Beta-4 loaded PLGA/PLA nanofiber/ microfiber hybrid yarns for tendon tissue engineering application. <i>Materials Science and Engineering C</i> , 2020, 106, 110268.	3.8	75
25	Fabrication of versatile dynamic hyaluronic acid-based hydrogels. <i>Carbohydrate Polymers</i> , 2020, 233, 115803.	5.1	83
26	Inhibition of Pyk2 and Src activity improves Cx43 gap junction intercellular communication. <i>Journal of Molecular and Cellular Cardiology</i> , 2020, 149, 27-40.	0.9	13
27	Age related extracellular matrix and interstitial cell phenotype in pulmonary valves. <i>Scientific Reports</i> , 2020, 10, 21338.	1.6	9
28	3D printed composite scaffolds with dual small molecule delivery for mandibular bone regeneration. <i>Biofabrication</i> , 2020, 12, 035020.	3.7	77
29	3D printing of multilayered scaffolds for rotator cuff tendon regeneration. <i>Bioactive Materials</i> , 2020, 5, 636-643.	8.6	60
30	Chikungunya Virus Infection Impairs the Function of Osteogenic Cells. <i>MSphere</i> , 2020, 5, .	1.3	7
31	Repair and regeneration of small intestine: A review of current engineering approaches. <i>Biomaterials</i> , 2020, 240, 119832.	5.7	28
32	TLR2 and caspase-1 signaling are critical for bacterial containment but not clearance during craniotomy-associated biofilm infection. <i>Journal of Neuroinflammation</i> , 2020, 17, 114.	3.1	16
33	The Role of Fluid Shear and Metastatic Potential in Breast Cancer Cell Migration. <i>Journal of Biomechanical Engineering</i> , 2020, 142, .	0.6	11
34	Concise review: Harnessing iPSC-derived cells for ischemic heart disease treatment. <i>Journal of Translational Internal Medicine</i> , 2020, 8, 20-25.	1.0	9
35	Materials and Their Biomedical Applications. , 2019, , 135-152.		9
36	The LINC complex, mechanotransduction, and mesenchymal stem cell function and fate. <i>Journal of Biological Engineering</i> , 2019, 13, 68.	2.0	91

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37	Large-Scale and Rapid Preparation of Nanofibrous Meshes and Their Application for Drug-Loaded Multilayer Mucoadhesive Patch Fabrication for Mouth Ulcer Treatment. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 28740-28751.	4.0	32
38	Development of Cryogel-Based Guidance Conduit for Peripheral Nerve Regeneration. <i>ACS Applied Bio Materials</i> , 2019, 2, 4864-4871.	2.3	17
39	Guiding Mesenchymal Stem Cells into Myelinating Schwann Cell-Like Phenotypes by Using Electrospun Core-Sheath Nanoyarns. <i>ACS Biomaterials Science and Engineering</i> , 2019, 5, 5284-5294.	2.6	20
40	3D printing of silk fibroin-based hybrid scaffold treated with platelet rich plasma for bone tissue engineering. <i>Bioactive Materials</i> , 2019, 4, 256-260.	8.6	76
41	Spatial Regulation of Valve Interstitial Cell Phenotypes within Three-Dimensional Micropatterned Hydrogels. <i>ACS Biomaterials Science and Engineering</i> , 2019, 5, 1416-1425.	2.6	13
42	Manufacturing human pluripotent stem cell derived endothelial cells in scalable and cell-friendly microenvironments. <i>Biomaterials Science</i> , 2019, 7, 373-388.	2.6	12
43	Platelet-Rich Plasma for the Treatment of Tissue Infection: Preparation and Clinical Evaluation. <i>Tissue Engineering - Part B: Reviews</i> , 2019, 25, 225-236.	2.5	54
44	Differentiating human pluripotent stem cells into vascular smooth muscle cells in three dimensional thermoreversible hydrogels. <i>Biomaterials Science</i> , 2019, 7, 347-361.	2.6	7
45	3D Bioprinted Scaffolds Containing Viable Macrophages and Antibiotics Promote Clearance of <i>Staphylococcus aureus</i> Craniotomy-Associated Biofilm Infection. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 12298-12307.	4.0	44
46	Implantable Nanotube Sensor Platform for Rapid Analyte Detection. <i>Macromolecular Bioscience</i> , 2019, 19, e1800469.	2.1	8
47	Spatiotemporal Characterizations of Spontaneously Beating Cardiomyocytes with Adaptive Reference Digital Image Correlation. <i>Scientific Reports</i> , 2019, 9, 18382.	1.6	5
48	Mineralized nanofiber segments coupled with calcium-binding BMP-2 peptides for alveolar bone regeneration. <i>Acta Biomaterialia</i> , 2019, 85, 282-293.	4.1	108
49	Effects of tunable, 3D-bioprinted hydrogels on human brown adipocyte behavior and metabolic function. <i>Acta Biomaterialia</i> , 2018, 71, 486-495.	4.1	38
50	Prevascularization of 3D printed bone scaffolds by bioactive hydrogels and cell co-culture. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2018, 106, 1788-1798.	1.6	94
51	3D hydrogel breast cancer models for studying the effects of hypoxia on epithelial to mesenchymal transition. <i>Oncotarget</i> , 2018, 9, 32191-32203.	0.8	43
52	3D Bioprinting of Breast Cancer Models for Drug Resistance Study. <i>ACS Biomaterials Science and Engineering</i> , 2018, 4, 4401-4411.	2.6	104
53	Mechanically robust cryogels with injectability and bioprinting supportability for adipose tissue engineering. <i>Acta Biomaterialia</i> , 2018, 74, 131-142.	4.1	45
54	A Scalable and Efficient Bioprocess for Manufacturing Human Pluripotent Stem Cell-Derived Endothelial Cells. <i>Stem Cell Reports</i> , 2018, 11, 454-469.	2.3	22

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55	Establishment of a Human iPSC- and Nanofiber-Based Microphysiological Blood-Brain Barrier System. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 21825-21835.	4.0	48
56	Optimizing Photo-Encapsulation Viability of Heart Valve Cell Types in 3D Printable Composite Hydrogels. <i>Annals of Biomedical Engineering</i> , 2017, 45, 360-377.	1.3	71
57	State-of-the-Art Review of 3D Bioprinting for Cardiovascular Tissue Engineering. <i>Annals of Biomedical Engineering</i> , 2017, 45, 195-209.	1.3	242
58	Living nano-micro fibrous woven fabric/hydrogel composite scaffolds for heart valve engineering. <i>Acta Biomaterialia</i> , 2017, 51, 89-100.	4.1	81
59	Three-dimensional hyaluronic acid hydrogel-based models for in vitro human iPSC-derived NPC culture and differentiation. <i>Journal of Materials Chemistry B</i> , 2017, 5, 3870-3878.	2.9	95
60	Effects of Hydroxyapatite and Hypoxia on Chondrogenesis and Hypertrophy in 3D Bioprinted ADMSC Laden Constructs. <i>ACS Biomaterials Science and Engineering</i> , 2017, 3, 826-835.	2.6	41
61	Living nanofiber yarn-based woven biotextiles for tendon tissue engineering using cell tri-culture and mechanical stimulation. <i>Acta Biomaterialia</i> , 2017, 62, 102-115.	4.1	147
62	Nanofiber-structured hydrogel yarns with pH-response capacity and cardiomyocyte-drivability for bio-microactuator application. <i>Acta Biomaterialia</i> , 2017, 60, 144-153.	4.1	16
63	Effect of scaffold morphology and cell co-culture on tenogenic differentiation of HADMSC on centrifugal melt electrospun poly (L-lactic acid) fibrous meshes. <i>Biofabrication</i> , 2017, 9, 044106.	3.7	61
64	Chikungunya Virus: Pathophysiology, Mechanism, and Modeling. <i>Viruses</i> , 2017, 9, 368.	1.5	84
65	Short-term hypoxic preconditioning promotes prevascularization in 3D bioprinted bone constructs with stromal vascular fraction derived cells. <i>RSC Advances</i> , 2017, 7, 29312-29320.	1.7	57
66	Active tissue stiffness modulation controls valve interstitial cell phenotype and osteogenic potential in 3D culture. <i>Acta Biomaterialia</i> , 2016, 36, 42-54.	4.1	84
67	Fabrication of Aligned Nanofiber Polymer Yarn Networks for Anisotropic Soft Tissue Scaffolds. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 16950-16960.	4.0	102
68	Current progress in tissue engineering of heart valves: multiscale problems, multiscale solutions. <i>Expert Opinion on Biological Therapy</i> , 2015, 15, 1155-1172.	1.4	139
69	Comparison of Mesenchymal Stem Cell Source Differentiation Toward Human Pediatric Aortic Valve Interstitial Cells within 3D Engineered Matrices. <i>Tissue Engineering - Part C: Methods</i> , 2015, 21, 795-807.	1.1	36
70	3D-Printed Hydrogel Technologies for Tissue-Engineered Heart Valves. <i>3D Printing and Additive Manufacturing</i> , 2014, 1, 122-136.	1.4	31
71	Stiffness and adhesivity control aortic valve interstitial cell behavior within hyaluronic acid based hydrogels. <i>Acta Biomaterialia</i> , 2013, 9, 7640-7650.	4.1	123
72	3D Bioprinting of heterogeneous aortic valve conduits with alginate/gelatin hydrogels. <i>Journal of Biomedical Materials Research - Part A</i> , 2013, 101A, 1255-1264.	2.1	818

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73	THREE-DIMENSIONAL NANOCOMPOSITE SCAFFOLDS FOR BONE TISSUE ENGINEERING: FROM DESIGN TO APPLICATION. <i>Nano LIFE</i> , 2012, 02, 1250005.	0.6	3
74	Nanocomposite Scaffolds for Bone Tissue Engineering: Design, Fabrication, Surface Modification and Sustained Release of Growth Factor. <i>Materials Research Society Symposia Proceedings</i> , 2011, 1301, 99.	0.1	4
75	Surface modification of three-dimensional Ca-P/PHBV nanocomposite scaffolds by physical entrapment of gelatin and its in vitro biological evaluation. <i>Frontiers of Materials Science</i> , 2011, 5, 57-68.	1.1	21
76	Nonisothermal melt crystallization behavior of calcium phosphate/poly(3-hydroxybutyrate-co-3-hydroxyvalerate) nanocomposite microspheres. <i>Polymer Engineering and Science</i> , 2011, 51, 1580-1591.	1.5	13
77	Selective laser sintering and its application in biomedical engineering. <i>MRS Bulletin</i> , 2011, 36, 998-1005.	1.7	69
78	Optimized fabrication of Ca-P/PHBV nanocomposite scaffolds via selective laser sintering for bone tissue engineering. <i>Biofabrication</i> , 2011, 3, 015001.	3.7	108
79	Three-dimensional nanocomposite scaffolds fabricated via selective laser sintering for bone tissue engineering. <i>Acta Biomaterialia</i> , 2010, 6, 4495-4505.	4.1	366
80	Customized Ca-P/PHBV nanocomposite scaffolds for bone tissue engineering: design, fabrication, surface modification and sustained release of growth factor. <i>Journal of the Royal Society Interface</i> , 2010, 7, S615-29.	1.5	131
81	Crystallization kinetics of poly(L-lactide)/carbonated hydroxyapatite nanocomposite microspheres. <i>Journal of Applied Polymer Science</i> , 2009, 113, 4100-4115.	1.3	59