Ibrahim T Ozbolat

List of Publications by Year
in descending order

96 papers	9,621 citations	57631 44 h-index	54797 84 g-index
105 all docs	105 docs citations	105 times ranked	7585 citing authors

#	Article	IF	Citations
1	Controlled Co-delivery of pPDGF-B and pBMP-2 from intraoperatively bioprinted bone constructs improves the repair of calvarial defects in rats. Biomaterials, 2022, 281, 121333.	5.7	31
2	Dual-charge bacterial cellulose as a potential 3D printable material for soft tissue engineering. Composites Part B: Engineering, 2022, 231, 109598.	5.9	19
3	Aspiration-assisted freeform bioprinting of mesenchymal stem cell spheroids within alginate microgels. Biofabrication, 2022, 14, 024103.	3.7	25
4	3D coaxial bioprinting: process mechanisms, bioinks and applications. Progress in Biomedical Engineering, 2022, 4, 022003.	2.8	11
5	miRNA induced 3D bioprinted-heterotypic osteochondral interface. Biofabrication, 2022, 14, 044104.	3.7	8
6	Three-Dimensional Bioprinting of Articular Cartilage: A Systematic Review. Cartilage, 2021, 12, 76-92.	1.4	46
7	Fabrication of PDMS microfluidic devices using nanoclay-reinforced Pluronic F-127 as a sacrificial ink. Biomedical Materials (Bristol), 2021, 16, 045005.	1.7	18
8	Intraâ€Operative Bioprinting of Hard, Soft, and Hard/Soft Composite Tissues for Craniomaxillofacial Reconstruction. Advanced Functional Materials, 2021, 31, 2010858.	7.8	37
9	Recent advances in bioprinting technologies for engineering hepatic tissue. Materials Science and Engineering C, 2021, 123, 112013.	3.8	26
10	Studying Tumor Angiogenesis and Cancer Invasion in a Threeâ€Dimensional Vascularized Breast Cancer Microâ€Environment. Advanced Biology, 2021, 5, e2100090.	1.4	27
11	Tissue Engineering: Intraâ€Operative Bioprinting of Hard, Soft, and Hard/Soft Composite Tissues for Craniomaxillofacial Reconstruction (Adv. Funct. Mater. 29/2021). Advanced Functional Materials, 2021, 31, 2170212.	7.8	1
12	Natural and Synthetic Bioinks for 3D Bioprinting. Advanced NanoBiomed Research, 2021, 1, 2000097.	1.7	60
13	3D Bioprinting for fabrication of tissue models of COVID-19 infection. Essays in Biochemistry, 2021, 65, 503-518.	2.1	11
14	Navigating the Genomic Landscape of Human Adipose Stem Cell-Derived Î²-Cells. Stem Cells and Development, 2021, 30, 1153-1170.	1.1	2
15	miRNA induced co-differentiation and cross-talk of adipose tissue-derived progenitor cells for 3D heterotypic pre-vascularized bone formation. Biofabrication, 2021, 13, 044107.	3.7	10
16	Aspiration-assisted bioprinting of co-cultured osteogenic spheroids for bone tissue engineering. Biofabrication, 2021, 13, 015013.	3.7	34
17	A Scaffold Free 3D Bioprinted Cartilage Model for In Vitro Toxicology. Methods in Molecular Biology, 2021, 2147, 175-183.	0.4	0
18	Hybrid Bioprinting of Zonally Stratified Human Articular Cartilage Using Scaffoldâ€Free Tissue Strands as Building Blocks. Advanced Healthcare Materials, 2020, 9, e2001657.	3.9	29

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19	Rheological investigation of collagen, fibrinogen, and thrombin solutions for drop-on-demand 3D bioprinting. Soft Matter, 2020, 16, 10506-10517.	1.2	21
20	3D Bioprinting of Tumor Models for Cancer Research. ACS Applied Bio Materials, 2020, 3, 5552-5573.	2.3	63
21	3D bioprinting for reconstituting the cancer microenvironment. Npj Precision Oncology, 2020, 4, 18.	2.3	163
22	Aspiration-assisted bioprinting of the osteochondral interface. Scientific Reports, 2020, 10, 13148.	1.6	45
23	Aspiration-assisted freeform bioprinting of pre-fabricated tissue spheroids in a yield-stress gel. Communications Physics, 2020, 3, .	2.0	62
24	3D bioprinting of cells, tissues and organs. Scientific Reports, 2020, 10, 14023.	1.6	148
25	The Role of Concentration on Drop Formation and Breakup of Collagen, Fibrinogen, and Thrombin Solutions during Inkjet Bioprinting. Langmuir, 2020, 36, 15373-15385.	1.6	15
26	Aspiration-assisted bioprinting for precise positioning of biologics. Science Advances, 2020, 6, eaaw5111.	4.7	170
27	Intraoperative Bioprinting: Repairing Tissues and Organs in a Surgical Setting. Trends in Biotechnology, 2020, 38, 594-605.	4.9	62
28	The bioprinting roadmap. Biofabrication, 2020, 12, 022002.	3.7	291
29	3D Bioprinting of Carbohydrazide-Modified Gelatin into Microparticle-Suspended Oxidized Alginate for the Fabrication of Complex-Shaped Tissue Constructs. ACS Applied Materials & Interfaces, 2020, 12, 20295-20306.	4.0	65
30	3D Coaxial Bioprinting of Vasculature. Methods in Molecular Biology, 2020, 2140, 171-181.	0.4	8
31	Bioprinting functional tissues. Acta Biomaterialia, 2019, 95, 32-49.	4.1	114
32	Collagen-infilled 3D printed scaffolds loaded with miR-148b-transfected bone marrow stem cells improve calvarial bone regeneration in rats. Materials Science and Engineering C, 2019, 105, 110128.	3.8	45
33	Thermally-controlled extrusion-based bioprinting of collagen. Journal of Materials Science: Materials in Medicine, 2019, 30, 55.	1.7	86
34	Extrusion-based printing of sacrificial Carbopol ink for fabrication of microfluidic devices. Biofabrication, 2019, 11, 034101.	3.7	30
35	Cellular Based Strategies for Microvascular Engineering. Stem Cell Reviews and Reports, 2019, 15, 218-240.	5.6	14
36	Synergistic interplay between human MSCs and HUVECs in 3D spheroids laden in collagen/fibrin hydrogels for bone tissue engineering. Acta Biomaterialia, 2019, 95, 348-356.	4.1	117

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37	Three-dimensional Bioprinting for Bone and Cartilage Restoration in Orthopaedic Surgery. Journal of the American Academy of Orthopaedic Surgeons, The, 2019, 27, e215-e226.	1.1	78
38	Porous tissue strands: avascular building blocks for scalable tissue fabrication. Biofabrication, 2019, 11, 015009.	3.7	22
39	Sprouting angiogenesis in engineered pseudo islets. Biofabrication, 2018, 10, 035003.	3.7	24
40	3D Printing of PDMS Improves Its Mechanical and Cell Adhesion Properties. ACS Biomaterials Science and Engineering, 2018, 4, 682-693.	2.6	119
41	3D bioprinting for modelling vasculature. Microphysiological Systems, 2018, 1, 1-1.	2.0	48
42	Squid Ring Teethâ€“coated Mesh Improves Abdominal Wall Repair. Plastic and Reconstructive Surgery - Global Open, 2018, 6, e1881.	0.3	8
43	Developments with 3D bioprinting for novel drug discovery. Expert Opinion on Drug Discovery, 2018, 13, 1115-1129.	2.5	35
44	Extrusion-Based Biofabrication in Tissue Engineering and Regenerative Medicine. , 2018, , 255-281.		15
45	Challenges in Bio-fabrication of Organoid Cultures. Advances in Experimental Medicine and Biology, 2018, 1107, 53-71.	0.8	29
46	Essential steps in bioprinting: From pre- to post-bioprinting. Biotechnology Advances, 2018, 36, 1481-1504.	6.0	105
47	3D printing of poly(Îµ-caprolactone)/poly(D,L-lactide-<i>co</i>-glycolide)/hydroxyapatite composite constructs for bone tissue engineering. Journal of Materials Research, 2018, 33, 1972-1986.	1.2	51
48	Inkjet Printing of Selfâ€Assembled 2D Titanium Carbide and Protein Electrodes for Stimuliâ€Responsive Electromagnetic Shielding. Advanced Functional Materials, 2018, 28, 1801972.	7.8	157
49	Controlled and Sequential Delivery of Fluorophores from 3D Printed Alginate-PLGA Tubes. Annals of Biomedical Engineering, 2017, 45, 297-305.	1.3	46
50	The bioink: A comprehensive review on bioprintable materials. Biotechnology Advances, 2017, 35, 217-239.	6.0	770
51	Bioprinting for vascular and vascularized tissue biofabrication. Acta Biomaterialia, 2017, 51, 1-20.	4.1	327
52	Droplet-Based Bioprinting âˆ— âˆ—With contributions by Hemanth Gudupati and Madhuri Dey, The Pennsylvania State University.. , 2017, , 125-163.		1
53	3D bioprinting for drug discovery and development in pharmaceutics. Acta Biomaterialia, 2017, 57, 26-46.	4.1	229
54	Transplantation of Bioprinted Tissues and Organs. Annals of Surgery, 2017, 266, 48-58.	2.1	83

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55	Bone tissue bioprinting for craniofacial reconstruction. Biotechnology and Bioengineering, 2017, 114, 2424-2431.	1.7	40
56	Concise Review: Bioprinting of Stem Cells for Transplantable Tissue Fabrication. Stem Cells Translational Medicine, 2017, 6, 1940-1948.	1.6	132
57	3D Printing for Cell Therapy Applications. Molecular and Translational Medicine, 2017, , 227-248.	0.4	6
58	Bioprinting and Cellular Therapies for Type 1 Diabetes. Trends in Biotechnology, 2017, 35, 1025-1034.	4.9	45
59	Evaluation of bioprinter technologies. Additive Manufacturing, 2017, 13, 179-200.	1.7	141
60	The Bioink âˆ— âˆ—With contributions by Monika Hospodiuk and Madhuri Dey, The Pennsylvania State University.. , 2017, , 41-92.		3
61	Design for Bioprinting. , 2017, , 13-39.		0
62	Laser-Based Bioprinting âˆ— âˆ—With minor contributions by Hemanth Gudapati, The Pennsylvania State University.. , 2017, , 165-197.		2
63	Bioprinter Technologies âˆ— âˆ—With contributions by Hemanth Gudupati and Kazim Moncal, The Pennsylvania State University.. , 2017, , 199-241.		3
64	Roadmap to Organ Printing. , 2017, , 243-269.		2
65	Applications of 3D Bioprinting âˆ— âˆ—With minor contributions by Dr. Weijie Peng, The Pennsylvania State University.. , 2017, , 271-312.		1
66	Bioprinting of osteochondral tissues: A perspective on current gaps and future trends. International Journal of Bioprinting, 2017, 3, 007.	1.7	25
67	A review on design for bioprinting. Bioprinting, 2016, 3-4, 1-14.	2.9	50
68	Application areas of 3D bioprinting. Drug Discovery Today, 2016, 21, 1257-1271.	3.2	258
69	Three-dimensional bioprinting using self-assembling scalable scaffold-free â€œtissue strandsâ€•as a new bioink. Scientific Reports, 2016, 6, 28714.	1.6	204
70	A comprehensive review on droplet-based bioprinting: Past, present and future. Biomaterials, 2016, 102, 20-42.	5.7	616
71	Bioprinting towards Physiologically Relevant Tissue Models for Pharmaceutics. Trends in Biotechnology, 2016, 34, 722-732.	4.9	186
72	Current advances and future perspectives in extrusion-based bioprinting. Biomaterials, 2016, 76, 321-343.	5.7	1,154

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73	Extrusion-Based Biofabrication in Tissue Engineering and Regenerative Medicine. , 2016, , 1-27.		7
74	Materials and scaffolds in medical 3D printing and bioprinting in the context of bone regeneration. International Journal of Computerized Dentistry, 2016, 19, 301-321.	0.2	21
75	Surface Micropatterning of Pure Titanium for Biomedical Applications Via High Energy Pulse Laser Peening. Journal of Micro and Nano-Manufacturing, 2015, 3, .	0.8	21
76	Scaffold-Based or Scaffold-Free Bioprinting: Competing or Complementing Approaches?. Journal of Nanotechnology in Engineering and Medicine, 2015, 6, .	0.8	125
77	Bioprinting scale-up tissue and organ constructs for transplantation. Trends in Biotechnology, 2015, 33, 395-400.	4.9	277
78	Microfabrication of scaffold-free tissue strands for three-dimensional tissue engineering. Biofabrication, 2015, 7, 031002.	3.7	89
79	In vitro study of directly bioprinted perfusable vasculature conduits. Biomaterials Science, 2015, 3, 134-143.	2.6	183
80	A Hybrid Bioprinting Approach for Scale-Up Tissue Fabrication. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2014, 136, .	1.3	72
81	Bioprinting Technology: A Current State-of-the-Art Review. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2014, 136, .	1.3	323
82	Design of a New Parametric Path Plan for Additive Manufacturing of Hollow Porous Structures With Functionally Graded Materials. Journal of Computing and Information Science in Engineering, 2014, 14, .	1.7	19
83	<i>In vitro</i>evaluation of carbon-nanotube-reinforced bioprintable vascular conduits. Nanotechnology, 2014, 25, 145101.	1.3	126
84	Development of â€˜Multi-arm Bioprinterâ€™ for hybrid biofabrication of tissue engineering constructs. Robotics and Computer-Integrated Manufacturing, 2014, 30, 295-304.	6.1	148
85	Effect of multiwall carbon nanotube reinforcement on coaxially extruded cellular vascular conduits. Materials Science and Engineering C, 2014, 39, 126-133.	3.8	22
86	Characterization of printable cellular micro-fluidic channels for tissue engineering. Biofabrication, 2013, 5, 025004.	3.7	195
87	Bioprinting Toward Organ Fabrication: Challenges and Future Trends. IEEE Transactions on Biomedical Engineering, 2013, 60, 691-699.	2.5	545
88	Development of a Multi-Arm Bioprinter for Hybrid Tissue Engineering. , 2013, , .		2
89	Evaluation of Cell Viability and Functionality in Vessel-like Bioprintable Cell-Laden Tubular Channels. Journal of Biomechanical Engineering, 2013, 135, 91011.	0.6	218
90	Direct Bioprinting of Vessel-Like Tubular Microfluidic Channels. Journal of Nanotechnology in Engineering and Medicine, 2013, 4, .	0.8	142

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91	Bioprinting Induced Cell Damage in Cellular Micro-Fluidic Channel Fabrication. , 2013, , .		1
92	3D hybrid wound devices for spatiotemporally controlled release kinetics. Computer Methods and Programs in Biomedicine, 2012, 108, 922-931.	2.6	12
93	Hybrid tissue scaffolds for controlled release applications. Virtual and Physical Prototyping, 2012, 7, 37-47.	5.3	13
94	Engineered Tissue Scaffolds With Variational Porous Architecture. Journal of Biomechanical Engineering, 2011, 133, 011001.	0.6	73
95	Multi-function Based Modeling of 3D Heterogeneous Wound Scaffolds for Improved Wound Healing. Computer-Aided Design and Applications, 2011, 8, 43-57.	0.4	20
96	Modeling of Spatially Controlled Biomolecules in Three-Dimensional Porous Alginate Structures. Journal of Medical Devices, Transactions of the ASME, 2010, 4, .	0.4	23