Ferry P W Melchels

List of Publications by Year
in descending order

45	12,326	117571	233338
papers	citations	34 h-index	45 g-index

47	47	47	12209
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A review on stereolithography and its applications in biomedical engineering. Biomaterials, 2010, 31, 6121-6130.	5.7	1,874
2	25th Anniversary Article: Engineering Hydrogels for Biofabrication. Advanced Materials, 2013, 25, 5011-5028.	11.1	1,522
3	Additive manufacturing of tissues and organs. Progress in Polymer Science, 2012, 37, 1079-1104.	11.8	997
4	A review of rapid prototyping techniques for tissue engineering purposes. Annals of Medicine, 2008, 40, 268-280.	1.5	659
5	Gelatinâ€Methacrylamide Hydrogels as Potential Biomaterials for Fabrication of Tissueâ€Engineered Cartilage Constructs. Macromolecular Bioscience, 2013, 13, 551-561.	2.1	646
6	Proposal to assess printability of bioinks for extrusion-based bioprinting and evaluation of rheological properties governing bioprintability. Biofabrication, 2017, 9, 044107.	3.7	620
7	Gelatin-Methacryloyl Hydrogels: Towards Biofabrication-Based Tissue Repair. Trends in Biotechnology, 2016, 34, 394-407.	4.9	599
8	Functionalization, preparation and use of cell-laden gelatin methacryloylâ€“based hydrogels as modular tissue culture platforms. Nature Protocols, 2016, 11, 727-746.	5.5	581
9	Reinforcement of hydrogels using three-dimensionally printed microfibres. Nature Communications, 2015, 6, 6933.	5.8	567
10	Mathematically defined tissue engineering scaffold architectures prepared by stereolithography. Biomaterials, 2010, 31, 6909-6916.	5.7	437
11	A poly(d,l-lactide) resin for the preparation of tissue engineering scaffolds by stereolithography. Biomaterials, 2009, 30, 3801-3809.	5.7	382
12	Effects of the architecture of tissue engineering scaffolds on cell seeding and culturing. Acta Biomaterialia, 2010, 6, 4208-4217.	4.1	339
13	A biomimetic extracellular matrix for cartilage tissue engineering centered on photocurable gelatin, hyaluronic acid and chondroitin sulfate. Acta Biomaterialia, 2014, 10, 214-223.	4.1	291
14	Biofabrication of multi-material anatomically shaped tissue constructs. Biofabrication, 2013, 5, 035007.	3.7	262
15	3D bioprinting of methacrylated hyaluronic acid (MeHA) hydrogel with intrinsic osteogenicity. PLoS ONE, 2017, 12, e0177628.	1.1	262
16	Yield stress determines bioprintability of hydrogels based on gelatin-methacryloyl and gellan gum for cartilage bioprinting. Biofabrication, 2016, 8, 035003.	3.7	261
17	Bio-resin for high resolution lithography-based biofabrication of complex cell-laden constructs. Biofabrication, 2018, 10, 034101.	3.7	216
18	3D Printing in Suspension Baths: Keeping the Promises of Bioprinting Afloat. Trends in Biotechnology, 2020, 38, 584-593.	4.9	183

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19	Development and characterisation of a new bioink for additive tissue manufacturing. Journal of Materials Chemistry B, 2014, 2, 2282.	2.9	182
20	Gelatine methacrylamide-based hydrogels: An alternative three-dimensional cancer cell culture system. Acta Biomaterialia, 2014, 10, 2551-2562.	4.1	174
21	Designed biodegradable hydrogel structures prepared by stereolithography using poly(ethylene) Tj ETQq1 1 0.784314 rgBT /Overlock	4.8	154
22	The influence of the scaffold design on the distribution of adhering cells after perfusion cell seeding. Biomaterials, 2011, 32, 2878-2884.	5.7	141
23	Visible Light Crossâ€Linking of Gelatin Hydrogels Offers an Enhanced Cell Microenvironment with Improved Light Penetration Depth. Macromolecular Bioscience, 2019, 19, e1900098.	2.1	127
24	Fumaric Acid Monoethyl Ester-Functionalized Poly(<scp>d</scp>,<scp>l</scp>-lactide)/N-vinyl-2-pyrrolidone Resins for the Preparation of Tissue Engineering Scaffolds by Stereolithography. Biomacromolecules, 2009, 10, 214-220.	2.6	120
25	Sustained regeneration of high-volume adipose tissue for breast reconstruction using computer aided design and biomanufacturing. Biomaterials, 2015, 52, 551-560.	5.7	98
26	Hydrogel-based reinforcement of 3D bioprinted constructs. Biofabrication, 2016, 8, 035004.	3.7	81
27	Three dimensional in vitro models of cancer: Bioprinting multilineage glioblastoma models. Advances in Biological Regulation, 2020, 75, 100658.	1.4	66
28	Emulating Human Tissues and Organs: A Bioprinting Perspective Toward Personalized Medicine. Chemical Reviews, 2020, 120, 11093-11139.	23.0	61
29	Effects of scaffold architecture on mechanical characteristics and osteoblast response to static and perfusion bioreactor cultures. Biotechnology and Bioengineering, 2014, 111, 1440-1451.	1.7	56
30	Chondrocyte redifferentiation and construct mechanical property development in singleâ€component photocrosslinkable hydrogels. Journal of Biomedical Materials Research - Part A, 2014, 102, 2544-2553.	2.1	56
31	CAD/CAM-assisted breast reconstruction. Biofabrication, 2011, 3, 034114.	3.7	49
32	Improved bovine embryo production in an oviduct-on-a-chip system: prevention of poly-spermic fertilization and parthenogenic activation. Lab on A Chip, 2017, 17, 905-916.	3.1	49
33	Engineering of vascularized adipose constructs. Cell and Tissue Research, 2012, 347, 747-757.	1.5	45
34	3D Bioprinting of Lignocellulosic Biomaterials. Advanced Healthcare Materials, 2020, 9, e2001472.	3.9	42
35	Photo-Cross-Linked Poly(<scp>dl</scp>-lactide)-Based Networks. Structural Characterization by HR-MAS NMR Spectroscopy and Hydrolytic Degradation Behavior. Macromolecules, 2010, 43, 8570-8579.	2.2	32
36	Focal adhesion signaling affects regeneration by human nucleus pulposus cells in collagen- but not carbohydrate-based hydrogels. Acta Biomaterialia, 2018, 66, 238-247.	4.1	20

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37	Comparing Hydrogels for Human Nucleus Pulposus Regeneration: Role of Osmolarity During Expansion. Tissue Engineering - Part C: Methods, 2018, 24, 222-232.	1.1	16
38	Celebrating three decades of stereolithography. Virtual and Physical Prototyping, 2012, 7, 173-175.	5.3	10
39	Routes towards manufacturing biodegradable electronics with polycaprolactone (PCL) via direct light writing and electroless plating. Flexible and Printed Electronics, 2022, 7, 025006.	1.5	10
40	Breast Reconstruction Using Biofabrication-Based Tissue Engineering Strategies. , 2013, , 183-216.		9
41	Initial design and physical characterization of a polymeric device for osmosisâ€driven delayed burst delivery of vaccines. Biotechnology and Bioengineering, 2015, 112, 1927-1935.	1.7	8
42	Prolonged recovery of 3D printed, photo-cured polylactide shape memory polymer networks. APL Bioengineering, 2020, 4, 036105.	3.3	8
43	Accurate Measurements of the Skin Surface Area of the Healthy Auricle and Skin Deficiency in Microtia Patients. Plastic and Reconstructive Surgery - Global Open, 2016, 4, e1146.	0.3	5
44	Methacrylate-Functionalized Oligomers Based On Lactide, E-Caprolactone And Trimethylene Carbonate For Application In Stereo-Lithography. Materials Research Innovations, 2006, 10, 321-330.	1.0	3
45	Elastic Bioresorbable Polymeric Capsules for Osmosis-Driven Delayed Burst Delivery of Vaccines. Pharmaceutics, 2021, 13, 434.	2.0	3