

# Robert C Chang

## List of Publications by Year in descending order

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Version: 2024-02-01

33  
papers

1,314  
citations

686830

13  
h-index

580395

25  
g-index

33  
all docs

33  
docs citations

33  
times ranked

1814  
citing authors

#	ARTICLE	IF	CITATIONS
1	Effects of Dispensing Pressure and Nozzle Diameter on Cell Survival from Solid Freeform Fabricationâ€”Based Direct Cell Writing. <i>Tissue Engineering - Part A</i> , 2008, 14, 41-48.	1.6	428
2	Biofabrication of a three-dimensional liver micro-organ as an <i>in vitro</i> drug metabolism model. <i>Biofabrication</i> , 2010, 2, 045004.	3.7	212
3	Direct Cell Writing of 3D Microorgan for <i>In Vitro</i> Pharmacokinetic Model. <i>Tissue Engineering - Part C: Methods</i> , 2008, 14, 157-166.	1.1	191
4	Printability Study of Bioprinted Tubular Structures Using Liquid Hydrogel Precursors in a Support Bath. <i>Applied Sciences (Switzerland)</i> , 2018, 8, 403.	1.3	77
5	Machine learning metrology of cell confinement in melt electrowritten three-dimensional biomaterial substrates. <i>Microsystems and Nanoengineering</i> , 2019, 5, 15.	3.4	59
6	A Fundamental Study of Charge Effects on Melt Electrowritten Polymer Fibers. <i>Materials and Design</i> , 2019, 178, 107857.	3.3	50
7	Melt Electrospinning Writing Process Guided by a â€œPrintability Numberâ€• <i>Journal of Manufacturing Science and Engineering, Transactions of the ASME</i> , 2017, 139, .	1.3	45
8	3D Bioprinted GelMA Based Models for the Study of Trophoblast Cell Invasion. <i>Scientific Reports</i> , 2019, 9, 18854.	1.6	42
9	Dimensional Metrology of Cell-matrix Interactions in 3D Microscale Fibrous Substrates. <i>Procedia CIRP</i> , 2017, 65, 32-37.	1.0	24
10	Simulating image-guided in situ bioprinting of a skin graft onto a phantom burn wound bed. <i>Additive Manufacturing</i> , 2018, 22, 708-719.	1.7	24
11	Influence of Transition Metal Dichalcogenide Surfaces on Cellular Morphology and Adhesion. <i>ACS Applied Bio Materials</i> , 2018, 1, 1448-1457.	2.3	16
12	A Chargeâ€”Based Mechanistic Study into the Effect of Collector Temperature on Melt Electrohydrodynamic Printing Outcomes. <i>Advanced Materials Technologies</i> , 2021, 6, 2100251.	3.0	16
13	Numerical investigation of dynamic microorgan devices as drug screening platforms. Part I: Macroscale modeling approach & validation. <i>Biotechnology and Bioengineering</i> , 2016, 113, 612-622.	1.7	13
14	Bioprinting multidimensional constructs: a quantitative approach to understanding printed cell density and redistribution phenomena. <i>Biomedical Physics and Engineering Express</i> , 2017, 3, 035016.	0.6	12
15	Microprinting of Liver Micro-organ for Drug Metabolism Study. <i>Methods in Molecular Biology</i> , 2011, 671, 219-238.	0.4	12
16	Design, fabrication, and analysis of spatially heterogeneous scaffold by melt electrospinning writing of poly( $\epsilon$ -Caprolactone). <i>Journal of Applied Polymer Science</i> , 2022, 139, .	1.3	11
17	Numerical analysis on the effects of microfluidic-based bioprinting parameters on the microfiber geometrical outcomes. <i>Scientific Reports</i> , 2022, 12, 3364.	1.6	10
18	A review of the structural and physical properties that govern cell interactions with structured biomaterials enabled by additive manufacturing. <i>Bioprinting</i> , 2022, 26, e00201.	2.9	9

#	ARTICLE	IF	CITATIONS
19	Numerical investigation of dynamic microorgan devices as drug screening platforms. Part II: Microscale modeling approach and validation. <i>Biotechnology and Bioengineering</i> , 2016, 113, 623-634.	1.7	8
20	A Charge-Based Mechanistic Study into the Effects of Process Parameters on Fiber Accumulating Geometry for a Melt Electrohydrodynamic Process. <i>Processes</i> , 2020, 8, 1440.	1.3	8
21	Biomedical Manufacturing: A Review of the Emerging Research and Applications. <i>Journal of Manufacturing Science and Engineering, Transactions of the ASME</i> , 2020, 142, .	1.3	8
22	Quantitative Investigation into the Design and Process Parametric Effects on the Fiber-Entrapped Residual Charge for a Polymer Melt Electrohydrodynamic Printing Process. <i>Macromolecular Materials and Engineering</i> , 2022, 307, .	1.7	7
23	A Novel Melt Electrospinning System for Studying Cell Substrate Interactions. , 2015, , .		5
24	Organ Printing. , 2015, , 333-347.		5
25	Towards Resolution Enhancement and Process Repeatability With a Melt Electrospinning Writing Process: Design and Protocol Considerations. , 2016, , .		5
26	Advancing a real-time image-based jet lag tracking methodology for optimizing print parameters and assessing melt electrowritten fiber quality. <i>Additive Manufacturing</i> , 2022, 54, 102764.	1.7	5
27	Effects of scaffold design parameters on the printing accuracy for melt electrowriting. <i>Journal of Manufacturing Processes</i> , 2022, 81, 177-190.	2.8	5
28	A Methodology for Quantifying Cell Density and Distribution in Multidimensional Bioprinted Gelatin-Alginate Constructs. , 2017, , .		3
29	Analytical interpretation of microscale fiber deviation in designing for polymer melt electrohydrodynamic-based additive manufacturing. <i>Additive Manufacturing</i> , 2022, 58, 103035.	1.7	3
30	Comparison of photometric stereo and spectral analysis for visualization and assessment of burn injury from hyperspectral imaging. , 2015, , .		1
31	Bioprinted nanoparticles for tissue engineering. , 2009, , .		0
32	Investigation of Cellular Confinement in Three-Dimensional Microscale Fibrous Substrates: Fabrication and Metrology. <i>Journal of Micro and Nano-Manufacturing</i> , 2018, 6, .	0.8	0
33	Effects of Printing Sequence on the Printing Accuracy of Melt Electrowriting Scaffolds. <i>Macromolecular Materials and Engineering</i> , 0, , 2200222.	1.7	0