Wenmiao Shu

List of Publications by Year
in descending order

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60 papers	5,486 citations	186209 28 h-index	149623 56 g-index
61 all docs	61 docs citations	61 times ranked	7677 citing authors

#	Article	IF	Citations
1	3D bioactive composite scaffolds for bone tissue engineering. Bioactive Materials, 2018, 3, 278-314.	8.6	866
2	Biofabrication: reappraising the definition of an evolving field. Biofabrication, 2016, 8, 013001.	3.7	523
3	Biofabrication: A Guide to Technology and Terminology. Trends in Biotechnology, 2018, 36, 384-402.	4.9	465
4	Bioprinting of human pluripotent stem cells and their directed differentiation into hepatocyte-like cells for the generation of mini-livers in 3D. Biofabrication, 2015, 7, 044102.	3.7	389
5	Rapid Formation of a Supramolecular Polypeptideâ€“DNA Hydrogel for Inâ€…Situ Threeâ€Dimensional Multilayer Bioprinting. Angewandte Chemie - International Edition, 2015, 54, 3957-3961.	7.2	344
6	Three-dimensional bioprinting of complex cell laden alginate hydrogel structures. Biofabrication, 2015, 7, 045012.	3.7	320
7	The bioprinting roadmap. Biofabrication, 2020, 12, 022002.	3.7	291
8	Reconstruction of the mouse extrahepatic biliary tree using primary human extrahepatic cholangiocyte organoids. Nature Medicine, 2017, 23, 954-963.	15.2	210
9	DNA Molecular Motor Driven Micromechanical Cantilever Arrays. Journal of the American Chemical Society, 2005, 127, 17054-17060.	6.6	206
10	Kinetics and thermodynamics of amyloid formation from direct measurements of fluctuations in fibril mass. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 10016-10021.	3.3	186
11	Development of a valve-based cell printer for the formation of human embryonic stem cell spheroid aggregates. Biofabrication, 2013, 5, 015013.	3.7	173
12	Additive Manufacturing: Unlocking the Evolution of Energy Materials. Advanced Science, 2017, 4, 1700187.	5.6	173
13	Highly Reversible and Multi-Stage Cantilever Actuation Driven by Polyelectrolyte Brushes. Journal of the American Chemical Society, 2006, 128, 5326-5327.	6.6	164
14	Polyelectrolyte Brush Amplified Electroactuation of Microcantilevers. Nano Letters, 2008, 8, 725-730.	4.5	109
15	3D bioprint me: a socioethical view of bioprinting human organs and tissues. Journal of Medical Ethics, 2017, 43, 618-624.	1.0	81
16	3D biofabrication for tubular tissue engineering. Bio-Design and Manufacturing, 2018, 1, 89-100.	3.9	65
17	Elasticity as a biomarker for prostate cancer: a systematic review. BJU International, 2014, 113, 523-534.	1.3	62
18	Investigation of biotinâ€“streptavidin binding interactions using microcantilever sensors. Biosensors and Bioelectronics, 2007, 22, 2003-2009.	5.3	59

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19	Constructing Tissuelike Complex Structures Using Cell-Laden DNA Hydrogel Bricks. ACS Applied Materials & Interfaces, 2017, 9, 12311-12315.	4.0	57
20	3D bioprinting of mature bacterial biofilms for antimicrobial resistance drug testing. Biofabrication, 2019, 11, 045018.	3.7	56
21	Microfluidic Fabrication of Biomimetic Helical Hydrogel Microfibers for Bloodâ€Vesselâ€onâ€aâ€Chip Applications. Advanced Healthcare Materials, 2019, 8, e1900435.	3.9	53
22	Highly specific label-free protein detection from lysed cells using internally referenced microcantilever sensors. Biosensors and Bioelectronics, 2008, 24, 233-237.	5.3	48
23	Rapid antibiotic susceptibility testing using low-cost, commercially available screen-printed electrodes. Biosensors and Bioelectronics, 2019, 145, 111696.	5.3	39
24	Three-dimensional bioprinting of stem-cell derived tissues for human regenerative medicine. Philosophical Transactions of the Royal Society B: Biological Sciences, 2018, 373, 20170224.	1.8	38
25	Micro-tweezers: Design, fabrication, simulation and testing of a pneumatically actuated micro-gripper for micromanipulation and microtactile sensing. Sensors and Actuators A: Physical, 2015, 236, 394-404.	2.0	37
26	Label-free detection of amyloid growth with microcantilever sensors. Nanotechnology, 2008, 19, 384007.	1.3	35
27	Opportunities and challenges for the application of microfluidic technologies in point-of-care veterinary diagnostics. Molecular and Cellular Probes, 2016, 30, 331-341.	0.9	31
28	Current developments in 3D bioprinting for tissue engineering. Current Opinion in Biomedical Engineering, 2017, 2, 76-82.	1.8	29
29	3D Printing of Highly Stretchable and Sensitive Strain Sensors Using Graphene Based Composites. Proceedings (mdpi), 2018, 2, .	0.2	28
30	Microfluidics-Based Fabrication of Cell-Laden Hydrogel Microfibers for Potential Applications in Tissue Engineering. Molecules, 2019, 24, 1633.	1.7	23
31	Rising to the challenge: applying biofabrication approaches for better drug and chemical product development. Biofabrication, 2017, 9, 033001.	3.7	22
32	3D biofabrication for soft tissue and cartilage engineering. Medical Engineering and Physics, 2020, 82, 13-39.	0.8	21
33	A scalable syringe-actuated microgripper for biological manipulation. Sensors and Actuators A: Physical, 2013, 202, 135-139.	2.0	20
34	Label-free and real-time monitoring of yeast cell growth by the bending of polymer microcantilever biosensors. Sensors and Actuators B: Chemical, 2013, 178, 621-626.	4.0	19
35	A Micro-Machined Optical Fiber Cantilever as a Miniaturized pH Sensor. IEEE Sensors Journal, 2015, 15, 7221-7228.	2.4	17
36	Static mode microfluidic cantilevers for detection of waterborne pathogens. Sensors and Actuators A: Physical, 2016, 247, 144-149.	2.0	16

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37	Sacrificial 3D Printing of Highly Porous, Soft Pressure Sensors. Advanced Electronic Materials, 2022, 8, 2100597.	2.6	16
38	Rapid Fabrication of Cell-Laden Alginate Hydrogel 3D Structures by Micro Dip-Coating. Frontiers in Bioengineering and Biotechnology, 2017, 5, 13.	2.0	15
39	CD271 antibody-functionalized microspheres capable of selective recruitment of reparative endogenous stem cells for in situ bone regeneration. Biomaterials, 2022, 280, 121243.	5.7	15
40	A Scalable Syringe-Actuated Microgripper for Biological Manipulation. Procedia Engineering, 2012, 47, 882-885.	1.2	14
41	A Bioprinted Heart-on-a-Chip with Human Pluripotent Stem Cell-Derived Cardiomyocytes for Drug Evaluation. Bioengineering, 2022, 9, 32.	1.6	14
42	Microcantilever Biosensors: Probing Biomolecular Interactions at the Nanoscale. Current Organic Chemistry, 2011, 15, 477-485.	0.9	12
43	Tissue Quality Assessment Using a Novel Direct Elasticity Assessment Device (The E-Finger): A Cadaveric Study of Prostatectomy Dissection. PLoS ONE, 2014, 9, e112872.	1.1	9
44	Vertically aligned carbon nanotube-based electrodes for hydrogen production by water electrolysis. Journal of Materials Research, 2013, 28, 927-932.	1.2	8
45	Microheated substrates for patterning cells and controlling development. Journal of Microelectromechanical Systems, 2005, 14, 924-934.	1.7	7
46	An optical fibre dynamic instrumented palpation sensor for the characterisation of biological tissue. Sensors and Actuators A: Physical, 2015, 225, 53-60.	2.0	7
47	A Novel Multi-pad Paper Plate (MP 3) Based Assays for Rapid Animal Disease Diagnostics. Procedia Engineering, 2016, 168, 1418-1421.	1.2	7
48	A hybrid paper-based microfluidic platform toward veterinary P-ELISA. Sensors and Actuators B: Chemical, 2018, 273, 536-542.	4.0	7
49	Development of a novel actuator for the dynamic palpation of soft tissue for use in the assessment of prostate tissue quality. Sensors and Actuators A: Physical, 2015, 232, 310-318.	2.0	6
50	Validation of a fully integrated platform and disposable microfluidic chips enabling parallel purification of genome segments for assembly. Biotechnology and Bioengineering, 2014, 111, 1627-1637.	1.7	5
51	Organ Printing from Stem Cells. Genetic Engineering and Biotechnology News, 2012, 32, 48-48.	0.1	3
52	Development of a Pneumatically Actuated Cantilever Based Micro-tweezer. Procedia Engineering, 2014, 87, 1390-1393.	1.2	3
53	A Scalable, Minimal Contact Device for the Characterization of Elastomer Membrane Deformation. Procedia Engineering, 2014, 87, 508-511.	1.2	2
54	A Scalable Actuator for the Dynamic Palpation of Soft Tissue for Use in the Assessment of Prostate Tissue Quality. Procedia Engineering, 2014, 87, 656-659.	1.2	1

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55	3D Bioprinting of Complex, Cell-laden Alginate Constructs. Methods in Molecular Biology, 2021, 2147, 143-148.	0.4	1
56	Nanomechanical Cantilever Sensors. , 2010, , 69-96.		0
57	A vertically aligned carbon nanotube/fiber based electrode for economic hydrogen production by water electrolysis. , 2010, , .		0
58	A vertical aligned carbon nanotube based platform for hydrogen production by water electrolysis. , 2010, , .		0
59	Design, Fabrication and Test of a Polymer Air Driven Microturbine for Micropower Generation. Procedia Engineering, 2012, 47, 877-881.	1.2	0
60	Helical Hydrogel Nanofibers: Microfluidic Fabrication of Biomimetic Helical Hydrogel Microfibers for Bloodâ€Vesselâ€onâ€aâ€Chip Applications (Adv. Healthcare Mater. 13/2019). Advanced Healthcare Materials, 2019, 8, 1970055.	3.9	0