Wenmiao Shu

List of Publications by Year
in descending order

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60 papers	5,486 citations	186265 28 h-index	149698 56 g-index
61 all docs	61 docs citations	61 times ranked	7677 citing authors

#	Article	IF	Citations
1	Sacrificial 3D Printing of Highly Porous, Soft Pressure Sensors. Advanced Electronic Materials, 2022, 8, 2100597.	5.1	16
2	CD271 antibody-functionalized microspheres capable of selective recruitment of reparative endogenous stem cells for in situ bone regeneration. Biomaterials, 2022, 280, 121243.	11.4	15
3	A Bioprinted Heart-on-a-Chip with Human Pluripotent Stem Cell-Derived Cardiomyocytes for Drug Evaluation. Bioengineering, 2022, 9, 32.	3.5	14
4	3D Bioprinting of Complex, Cell-laden Alginate Constructs. Methods in Molecular Biology, 2021, 2147, 143-148.	0.9	1
5	3D biofabrication for soft tissue and cartilage engineering. Medical Engineering and Physics, 2020, 82, 13-39.	1.7	21
6	The bioprinting roadmap. Biofabrication, 2020, 12, 022002.	7.1	291
7	3D bioprinting of mature bacterial biofilms for antimicrobial resistance drug testing. Biofabrication, 2019, 11, 045018.	7.1	56
8	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.	7.6	0
9	Rapid antibiotic susceptibility testing using low-cost, commercially available screen-printed electrodes. Biosensors and Bioelectronics, 2019, 145, 111696.	10.1	39
10	Microfluidics-Based Fabrication of Cell-Laden Hydrogel Microfibers for Potential Applications in Tissue Engineering. Molecules, 2019, 24, 1633.	3.8	23
11	Microfluidic Fabrication of Biomimetic Helical Hydrogel Microfibers for Bloodâ€Vesselâ€onâ€aâ€Chip Applications. Advanced Healthcare Materials, 2019, 8, e1900435.	7.6	53
12	3D bioactive composite scaffolds for bone tissue engineering. Bioactive Materials, 2018, 3, 278-314.	15.6	866
13	Biofabrication: A Guide to Technology and Terminology. Trends in Biotechnology, 2018, 36, 384-402.	9.3	465
14	3D Printing of Highly Stretchable and Sensitive Strain Sensors Using Graphene Based Composites. Proceedings (mdpi), 2018, 2, .	0.2	28
15	Three-dimensional bioprinting of stem-cell derived tissues for human regenerative medicine. Philosophical Transactions of the Royal Society B: Biological Sciences, 2018, 373, 20170224.	4.0	38
16	3D biofabrication for tubular tissue engineering. Bio-Design and Manufacturing, 2018, 1, 89-100.	7.7	65
17	A hybrid paper-based microfluidic platform toward veterinary P-ELISA. Sensors and Actuators B: Chemical, 2018, 273, 536-542.	7.8	7
18	Current developments in 3D bioprinting for tissue engineering. Current Opinion in Biomedical Engineering, 2017, 2, 76-82.	3.4	29

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19	3D bioprint me: a socioethical view of bioprinting human organs and tissues. Journal of Medical Ethics, 2017, 43, 618-624.	1.8	81
20	Constructing Tissuelike Complex Structures Using Cell-Laden DNA Hydrogel Bricks. ACS Applied Materials & Interfaces, 2017, 9, 12311-12315.	8.0	57
21	Additive Manufacturing: Unlocking the Evolution of Energy Materials. Advanced Science, 2017, 4, 1700187.	11.2	173
22	Rising to the challenge: applying biofabrication approaches for better drug and chemical product development. Biofabrication, 2017, 9, 033001.	7.1	22
23	Reconstruction of the mouse extrahepatic biliary tree using primary human extrahepatic cholangiocyte organoids. Nature Medicine, 2017, 23, 954-963.	30.7	210
24	Rapid Fabrication of Cell-Laden Alginate Hydrogel 3D Structures by Micro Dip-Coating. Frontiers in Bioengineering and Biotechnology, 2017, 5, 13.	4.1	15
25	A Novel Multi-pad Paper Plate (MP 3) Based Assays for Rapid Animal Disease Diagnostics. Procedia Engineering, 2016, 168, 1418-1421.	1.2	7
26	Static mode microfluidic cantilevers for detection of waterborne pathogens. Sensors and Actuators A: Physical, 2016, 247, 144-149.	4.1	16
27	Opportunities and challenges for the application of microfluidic technologies in point-of-care veterinary diagnostics. Molecular and Cellular Probes, 2016, 30, 331-341.	2.1	31
28	Biofabrication: reappraising the definition of an evolving field. Biofabrication, 2016, 8, 013001.	7.1	523
29	A Micro-Machined Optical Fiber Cantilever as a Miniaturized pH Sensor. IEEE Sensors Journal, 2015, 15, 7221-7228.	4.7	17
30	Three-dimensional bioprinting of complex cell laden alginate hydrogel structures. Biofabrication, 2015, 7, 045012.	7.1	320
31	Rapid Formation of a Supramolecular Polypeptideâ€“DNA Hydrogel for Inâ€…Situ Threeâ€Dimensional Multilayer Bioprinting. Angewandte Chemie - International Edition, 2015, 54, 3957-3961.	13.8	344
32	An optical fibre dynamic instrumented palpation sensor for the characterisation of biological tissue. Sensors and Actuators A: Physical, 2015, 225, 53-60.	4.1	7
33	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.	4.1	6
34	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.	4.1	37
35	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.	7.1	389
36	Tissue Quality Assessment Using a Novel Direct Elasticity Assessment Device (The E-Finger): A Cadaveric Study of Prostatectomy Dissection. PLoS ONE, 2014, 9, e112872.	2.5	9

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37	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
38	Development of a Pneumatically Actuated Cantilever Based Micro-tweezer. Procedia Engineering, 2014, 87, 1390-1393.	1.2	3
39	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.	3.3	5
40	Elasticity as a biomarker for prostate cancer: a systematic review. BJU International, 2014, 113, 523-534.	2.5	62
41	A Scalable, Minimal Contact Device for the Characterization of Elastomer Membrane Deformation. Procedia Engineering, 2014, 87, 508-511.	1.2	2
42	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.	7.8	19
43	A scalable syringe-actuated microgripper for biological manipulation. Sensors and Actuators A: Physical, 2013, 202, 135-139.	4.1	20
44	Development of a valve-based cell printer for the formation of human embryonic stem cell spheroid aggregates. Biofabrication, 2013, 5, 015013.	7.1	173
45	Vertically aligned carbon nanotube-based electrodes for hydrogen production by water electrolysis. Journal of Materials Research, 2013, 28, 927-932.	2.6	8
46	Design, Fabrication and Test of a Polymer Air Driven Microturbine for Micropower Generation. Procedia Engineering, 2012, 47, 877-881.	1.2	0
47	A Scalable Syringe-Actuated Microgripper for Biological Manipulation. Procedia Engineering, 2012, 47, 882-885.	1.2	14
48	Organ Printing from Stem Cells. Genetic Engineering and Biotechnology News, 2012, 32, 48-48.	0.1	3
49	Microcantilever Biosensors: Probing Biomolecular Interactions at the Nanoscale. Current Organic Chemistry, 2011, 15, 477-485.	1.6	12
50	Nanomechanical Cantilever Sensors. , 2010, , 69-96.		0
51	A vertically aligned carbon nanotube/fiber based electrode for economic hydrogen production by water electrolysis. , 2010, , .		0
52	A vertical aligned carbon nanotube based platform for hydrogen production by water electrolysis. , 2010, , .		0
53	Highly specific label-free protein detection from lysed cells using internally referenced microcantilever sensors. Biosensors and Bioelectronics, 2008, 24, 233-237.	10.1	48
54	Polyelectrolyte Brush Amplified Electroactuation of Microcantilevers. Nano Letters, 2008, 8, 725-730.	9.1	109

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55	Label-free detection of amyloid growth with microcantilever sensors. Nanotechnology, 2008, 19, 384007.	2.6	35
56	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.	7.1	186
57	Investigation of biotinâ€“streptavidin binding interactions using microcantilever sensors. Biosensors and Bioelectronics, 2007, 22, 2003-2009.	10.1	59
58	Highly Reversible and Multi-Stage Cantilever Actuation Driven by Polyelectrolyte Brushes. Journal of the American Chemical Society, 2006, 128, 5326-5327.	13.7	164
59	Microheated substrates for patterning cells and controlling development. Journal of Microelectromechanical Systems, 2005, 14, 924-934.	2.5	7
60	DNA Molecular Motor Driven Micromechanical Cantilever Arrays. Journal of the American Chemical Society, 2005, 127, 17054-17060.	13.7	206