Shuxun Chen

List of Publications by Year
in descending order

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39	1,401	516710 16	454955 30
papers	citations	h-index	g-index

40	40	40	2185
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Enhanced cell sorting and manipulation with combined optical tweezer and microfluidic chip technologies. Lab on A Chip, 2011, 11, 3656.	6.0	372
2	Development of a magnetic microrobot for carrying and delivering targeted cells. Science Robotics, 2018, 3, .	17.6	290
3	Single Cell Transfection through Precise Microinjection with Quantitatively Controlled Injection Volumes. Scientific Reports, 2016, 6, 24127.	3.3	84
4	Development of Magnetâ€Driven and Imageâ€Guided Degradable Microrobots for the Precise Delivery of Engineered Stem Cells for Cancer Therapy. Small, 2020, 16, e1906908.	10.0	84
5	Probing the mechanobiological properties of human embryonic stem cells in cardiac differentiation by optical tweezers. Journal of Biomechanics, 2012, 45, 123-128.	2.1	67
6	A High-Throughput Automated Microinjection System for Human Cells With Small Size. IEEE/ASME Transactions on Mechatronics, 2016, 21, 838-850.	5.8	64
7	A simplified sheathless cell separation approach using combined gravitational-sedimentation-based prefocusing and dielectrophoretic separation. Lab on A Chip, 2018, 18, 1521-1532.	6.0	50
8	<italic>In Vivo</italic> Manipulation of Single Biological Cells With an Optical Tweezers-Based Manipulator and a Disturbance Compensation Controller. IEEE Transactions on Robotics, 2017, 33, 1200-1212.	10.3	43
9	Cell manipulation tool with combined microwell array and optical tweezers for cell isolation and deposition. Journal of Micromechanics and Microengineering, 2013, 23, 075006.	2.6	41
10	Laser-induced fusion of human embryonic stem cells with optical tweezers. Applied Physics Letters, 2013, 103, 033701.	3.3	35
11	Fusion with stem cell makes the hepatocellular carcinoma cells similar to liver tumor-initiating cells. BMC Cancer, 2016, 16, 56.	2.6	28
12	Automated Transportation of Multiple Cell Types Using a Robot-Aided Cell Manipulation System With Holographic Optical Tweezers. IEEE/ASME Transactions on Mechatronics, 2017, 22, 804-814.	5.8	26
13	Lgr5â€overexpressing mesenchymal stem cells augment fracture healing through regulation of Wnt/ERK signaling pathways and mitochondrial dynamics. FASEB Journal, 2019, 33, 8565-8577.	0.5	25
14	Automated High-Productivity Microinjection System for Adherent Cells. IEEE Robotics and Automation Letters, 2020, 5, 1167-1174.	5.1	22
15	Translational and rotational manipulation of filamentous cells using optically driven microrobots. Optics Express, 2019, 27, 16475.	3.4	19
16	Microfluidic platform for probing cancer cells migration property under periodic mechanical confinement. Biomicrofluidics, 2018, 12, 024118.	2.4	17
17	A microengineered cell fusion approach with combined optical tweezers and microwell array technologies. RSC Advances, 2013, 3, 23589.	3.6	16
18	Precise Automated Intracellular Delivery Using a Robotic Cell Microscope System With Three-Dimensional Image Reconstruction Information. IEEE/ASME Transactions on Mechatronics, 2020, 25, 2870-2881.	5.8	16

#	Article	IF	Citations
19	Development of a collision-avoidance vector based control algorithm for automated in-vivo transportation of biological cells. Automatica, 2018, 90, 147-156.	5.0	11
20	Microfluidic single-cell array platform enabling week-scale clonal expansion under chemical/electrical stimuli. Biomicrofluidics, 2017, 11, .	2.4	10
21	Automated Indirect Transportation of Biological Cells with Optical Tweezers and a 3D Printed Microtool. Applied Sciences (Switzerland), 2019, 9, 2883.	2.5	10
22	Increasing the physical size and nucleation status of human pluripotent stem cell-derived ventricular cardiomyocytes by cell fusion. Stem Cell Research, 2017, 19, 76-81.	0.7	9
23	Magnetic Force-driven in Situ Selective Intracellular Delivery. Scientific Reports, 2018, 8, 14205.	3.3	7
24	Gravitational sedimentation-based approach for ultra-simple and flexible cell patterning coculture on microfluidic device. Biofabrication, 2020, 12, 035005.	7.1	7
25	Dynamic regulation of mitochondrial-endoplasmic reticulum crosstalk during stem cell homeostasis and aging. Cell Death and Disease, 2021, 12, 794.	6.3	6
26	Cell out-of-plane rotation control using a cell surgery robotic system equipped with optical tweezers manipulators. , 2016, , .		5
27	Calcium Spike Patterns Reveal Linkage of Electrical Stimulus and MSC Osteogenic Differentiation. IEEE Transactions on Nanobioscience, 2019, 18, 3-9.	3.3	5
28	Precise Drug Delivery by Using PLGA-Based Microspheres and Optical Manipulators. IEEE Transactions on Nanobioscience, 2020, 19, 192-202.	3.3	5
29	Knock-In of a Large Reporter Gene via the High-Throughput Microinjection of the CRISPR/Cas9 System. IEEE Transactions on Biomedical Engineering, 2022, 69, 2524-2532.	4.2	5
30	Development of a high throughput robot-aided cell injection system for human cells. , 2014, , .		4
31	Development of biocompatible magnetic microrobot transporter using 3D laser lithography. , 2016, , .		4
32	Effects of Gene Delivery Approaches on Differentiation Potential and Gene Function of Mesenchymal Stem Cells. IEEE Transactions on Biomedical Engineering, 2022, 69, 83-95.	4.2	4
33	Design of an automated controller with collision-avoidance capability for in-vivo transportation of biological cells. , 2017, , .		3
34	Automated parallel cell isolation and deposition using microwell array and optical tweezers. , 2012, , .		2
35	Automated laser-induced cell fusion based on microwell array. , 2013, , .		2
36	Fabrication and characterization of magnetic porous microrobots. , 2015, , .		1

#	Article	IF	Citations
37	Indirect Transportation of Filamentous Cells by Using Optically Actuated Microtools. , 2019, , .		1
38	Artificially induced cell fusion by optical tweezers manipulation. , 2013, , .		0
39	Laser-induced fusion of biological cells with cell positioning technique. , 2021, , 137-146.		0