

Yu Sun

List of Publications by Year in descending order

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324
papers

13,662
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17405

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times ranked

14074
citing authors

#	ARTICLE	IF	CITATIONS
1	An SEM-Based Nanomanipulation System for Multiphysical Characterization of Single InGaN/GaN Nanowires. IEEE Transactions on Automation Science and Engineering, 2023, 20, 233-243.	3.4	7
2	3-D Structured Light Scanning With Phase Domain-Modulated Fringe Patterns. IEEE Transactions on Industrial Electronics, 2023, 70, 5245-5254.	5.2	5
3	Trajectory Consensus for Coordination of Multiple Curvature-Bounded Vehicles. IEEE Transactions on Cybernetics, 2022, 52, 6307-6319.	6.2	3
4	Biophysical Measurement of Cellular and Intracellular Structures Using Magnetic Tweezers. , 2022, , 269-284.		0
5	Live imaging YAP signalling in mouse embryo development. Open Biology, 2022, 12, 210335.	1.5	7
6	Robotic Rotational Positioning of End-Effectors for Micromanipulation. IEEE Transactions on Robotics, 2022, 38, 2251-2261.	7.3	6
7	A Microdevice For Simultaneous Measurement of Cardiac Contraction and Electrophysiology. , 2022, , .		0
8	Microengineered platforms for characterizing the contractile function of in vitro cardiac models. Microsystems and Nanoengineering, 2022, 8, 26.	3.4	19
9	Green Manufacturing of Flexible Sensors with a Giant Gauge Factor: Bridging Effect of CNT and Electric Field Enhancement at the Percolation Threshold. ACS Applied Materials & Interfaces, 2022, 14, 26024-26033.	4.0	7
10	A Carbon-Based Biosensing Platform for Simultaneously Measuring the Contraction and Electrophysiology of iPSC-Cardiomyocyte Monolayers. ACS Nano, 2022, 16, 11278-11290.	7.3	15
11	Robotic Cell Manipulation for Blastocyst Biopsy. , 2022, , .		1
12	Mechanical reliability of monolayer MoS2 and WSe2. Matter, 2022, 5, 2975-2989.	5.0	5
13	Microrobotic Swarms for Intracellular Measurement with Enhanced Signal-to-Noise Ratio. ACS Nano, 2022, 16, 10824-10839.	7.3	12
14	Model Reference Adaptive Control for Aortic Pressure Regulation in Ex Vivo Heart Perfusion. IEEE Transactions on Control Systems Technology, 2021, 29, 884-892.	3.2	2
15	Optical Measurement of Highly Reflective Surfaces From a Single Exposure. IEEE Transactions on Industrial Informatics, 2021, 17, 1882-1891.	7.2	34
16	Evaluation of machine learning-driven automated Kleihauer-Betke counting: A method comparison study. International Journal of Laboratory Hematology, 2021, 43, 372-377.	0.7	3
17	Fast Eye-in-Hand 3-D Scanner-Robot Calibration for Low Stitching Errors. IEEE Transactions on Industrial Electronics, 2021, 68, 8422-8432.	5.2	17
18	A microdevice platform for characterizing the effect of mechanical strain magnitudes on the maturation of iPSC-Cardiomyocytes. Biosensors and Bioelectronics, 2021, 175, 112875.	5.3	26

#	ARTICLE	IF	CITATIONS
19	Shock Isolation Capability of an Electromagnetic Variable Stiffness Isolator With Bidirectional Stiffness Regulation. IEEE/ASME Transactions on Mechatronics, 2021, 26, 2038-2047.	3.7	8
20	Camera Orientation Optimization in Stereo Vision Systems for Low Measurement Error. IEEE/ASME Transactions on Mechatronics, 2021, 26, 1178-1182.	3.7	10
21	Efficient obstacle detection based on prior estimation network and spatially constrained mixture model for unmanned surface vehicles. Journal of Field Robotics, 2021, 38, 212-228.	3.2	15
22	Microfluidic devices for immobilization and micromanipulation of single cells and small organisms. , 2021, , 391-412.		0
23	Estimating Obstacle Maps for USVs Based on a Multistage Feature Aggregation and Semantic Feature Separation Network. Journal of Intelligent and Robotic Systems: Theory and Applications, 2021, 102, 1.	2.0	2
24	Automated motility and morphology measurement of live spermatozoa. Andrology, 2021, 9, 1205-1213.	1.9	4
25	Advances in reconstructing intestinal functionalities in vitro: From two/three dimensional-cell culture platforms to human intestine-on-a-chip. Talanta, 2021, 226, 122097.	2.9	11
26	Combinatorial screen of dynamic mechanical stimuli for predictive control of MSC mechano-responsiveness. Science Advances, 2021, 7, .	4.7	13
27	Advances in sperm analysis: techniques, discoveries and applications. Nature Reviews Urology, 2021, 18, 447-467.	1.9	29
28	Existing and Potential Applications of Elastography for Measuring the Viscoelasticity of Biological Tissues In Vivo. Frontiers in Physics, 2021, 9, .	1.0	6
29	Quantitative selection of single human sperm with high DNA integrity for intracytoplasmic sperm injection. Fertility and Sterility, 2021, 116, 1308-1318.	0.5	7
30	Robotic and microfluidic systems for single cell injection. , 2021, , 241-260.		0
31	Fracture and Fatigue of Al2O3-Graphene Nanolayers. Nano Letters, 2021, 21, 437-444.	4.5	9
32	Automated End-Effector Alignment for Robotic Cell Manipulation. , 2021, , .		2
33	Automation Techniques and Systems for ICSI. , 2021, , 129-140.		1
34	Legless soft robots capable of rapid, continuous, and steered jumping. Nature Communications, 2021, 12, 7028.	5.8	38
35	Robotic Manipulation of Deformable Cells for Orientation Control. IEEE Transactions on Robotics, 2020, 36, 271-283.	7.3	43
36	Culture on Tissueâ€”Specific Coatings Derived from Î±â€”Amylaseâ€”Digested Decellularized Adipose Tissue Enhances the Proliferation and Adipogenic Differentiation of Human Adiposeâ€”Derived Stromal Cells. Biotechnology Journal, 2020, 15, 1900118.	1.8	9

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37	Human cardiac fibrosis-on-a-chip model recapitulates disease hallmarks and can serve as a platform for drug testing. <i>Biomaterials</i> , 2020, 233, 119741.	5.7	111
38	High-Staticâ€“Low-Dynamic Stiffness Isolator With Tunable Electromagnetic Mechanism. <i>IEEE/ASME Transactions on Mechatronics</i> , 2020, 25, 316-326.	3.7	49
39	Model-Based Robotic Cell Aspiration: Tackling Nonlinear Dynamics and Varying Cell Sizes. <i>IEEE Robotics and Automation Letters</i> , 2020, 5, 173-178.	3.3	17
40	Primed Left Ventricle Heart Perfusion Creates Physiological Aortic Pressure in Porcine Hearts. <i>ASAIO Journal</i> , 2020, 66, 55-63.	0.9	4
41	Design and Control of a Piezo Drill for Robotic Piezo-Driven Cell Penetration. <i>IEEE Robotics and Automation Letters</i> , 2020, 5, 339-345.	3.3	17
42	Graphene fatigue through van der Waals interactions. <i>Science Advances</i> , 2020, 6, .	4.7	22
43	A CNT-PDMS wearable device for simultaneous measurement of wrist pulse pressure and cardiac electrical activity. <i>Materials Science and Engineering C</i> , 2020, 117, 111345.	3.8	30
44	Electrical impedance-based contractile stress measurement of human iPSC-Cardiomyocytes. <i>Biosensors and Bioelectronics</i> , 2020, 166, 112399.	5.3	14
45	Label-free conduction velocity mapping and gap junction assessment of functional iPSC-Cardiomyocyte monolayers. <i>Biosensors and Bioelectronics</i> , 2020, 167, 112468.	5.3	22
46	The conductive function of biopolymer corrects myocardial scar conduction blockage and resynchronizes contraction to prevent heart failure. <i>Biomaterials</i> , 2020, 258, 120285.	5.7	45
47	The NEMP family supports metazoan fertility and nuclear envelope stiffness. <i>Science Advances</i> , 2020, 6, eabb4591.	4.7	11
48	IRX3/5 regulate mitotic chromatid segregation and limb bud shape. <i>Development (Cambridge)</i> , 2020, 147, .	1.2	4
49	A Microfluidic Device With Optically-Controlled Electrodes for On-Demand Electrical Impedance Measurement of Targeted Single Cells. <i>Journal of Microelectromechanical Systems</i> , 2020, 29, 1563-1569.	1.7	5
50	Three-dimensional niche stiffness synergizes with Wnt7a to modulate the extent of satellite cell symmetric self-renewal divisions. <i>Molecular Biology of the Cell</i> , 2020, 31, 1703-1713.	0.9	26
51	Recapitulating Pancreatic Tumor Microenvironment through Synergistic Use of Patient Organoids and Organâ€“onâ€“a-Chip Vasculature. <i>Advanced Functional Materials</i> , 2020, 30, 2000545.	7.8	62
52	Hedgehog-Activated Fat4 and PCP Pathways Mediate Mesenchymal Cell Clustering and Villus Formation in Gut Development. <i>Developmental Cell</i> , 2020, 52, 647-658.e6.	3.1	39
53	Single-Beat Measurement of Left Ventricular Contractility in Normothermic <i>Ex Situ</i> Perfused Porcine Hearts. <i>IEEE Transactions on Biomedical Engineering</i> , 2020, 67, 3288-3295.	2.5	6
54	Magnetic Measurement and Stimulation of Cellular and Intracellular Structures. <i>ACS Nano</i> , 2020, 14, 3805-3821.	7.3	57

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55	Automated Parallel Electrical Characterization of Cells Using Optically-Induced Dielectrophoresis. IEEE Transactions on Automation Science and Engineering, 2020, 17, 1084-1092.	3.4	27
56	Spatial mapping of tissue properties in vivo reveals a 3D stiffness gradient in the mouse limb bud. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 4781-4791.	3.3	60
57	Fatigue of graphene. Nature Materials, 2020, 19, 405-411.	13.3	110
58	Magnetic Micromanipulation for <i>In Vivo</i> Measurement of Stiffness Heterogeneity and Anisotropy in the Mouse Mandibular Arch. Research, 2020, 2020, 7914074.	2.8	13
59	Robotic Immobilization of Motile Sperm for Clinical Intracytoplasmic Sperm Injection. IEEE Transactions on Biomedical Engineering, 2019, 66, 444-452.	2.5	36
60	Guest Editorial Neuro-Robotics Systems: Sensing, Cognition, Learning, and Control. IEEE Transactions on Cognitive and Developmental Systems, 2019, 11, 145-147.	2.6	8
61	Robotic Orientation Control of Deformable Cells. , 2019, , .		4
62	Dynamic Bioreactors with Integrated Microfabricated Devices for Mechanobiological Screening. Tissue Engineering - Part C: Methods, 2019, 25, 581-592.	1.1	10
63	A Novel Method for Extrinsic Calibration of Multiple RGB-D Cameras Using Descriptor-Based Patterns. Sensors, 2019, 19, 349.	2.1	10
64	Stiffness and ATP recovery of stored red blood cells in serum. Microsystems and Nanoengineering, 2019, 5, 51.	3.4	27
65	Automated Aortic Pressure Regulation in ex vivo Heart Perfusion. , 2019, , .		0
66	Investigating the detection limit of subsurface holes under graphite with atomic force acoustic microscopy. Nanoscale, 2019, 11, 10961-10967.	2.8	11
67	Construction of All-in-Focus Images Assisted by Depth Sensing. Sensors, 2019, 19, 1409.	2.1	5
68	Micropipette Aspiration of Single Cells for Both Mechanical and Electrical Characterization. IEEE Transactions on Biomedical Engineering, 2019, 66, 3185-3191.	2.5	28
69	Intracellular manipulation and measurement with multipole magnetic tweezers. Science Robotics, 2019, 4, .	9.9	110
70	Oscillatory cortical forces promote three dimensional cell intercalations that shape the murine mandibular arch. Nature Communications, 2019, 10, 1703.	5.8	52
71	Combined Sensing, Cognition, Learning, and Control for Developing Future Neuro-Robotics Systems: A Survey. IEEE Transactions on Cognitive and Developmental Systems, 2019, 11, 148-161.	2.6	22
72	Nanomechanical elasticity and fracture studies of lithium phosphate (LPO) and lithium tantalate (LTO) solid-state electrolytes. Nanoscale, 2019, 11, 18730-18738.	2.8	17

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73	Automated Laser Ablation of Motile Sperm for Immobilization. IEEE Robotics and Automation Letters, 2019, 4, 323-329.	3.3	6
74	Local strain mapping of GO nanosheets under in situ TEM tensile testing. Applied Materials Today, 2019, 14, 102-107.	2.3	6
75	Robotic Micromanipulation: Fundamentals and Applications. Annual Review of Control, Robotics, and Autonomous Systems, 2019, 2, 181-203.	7.5	101
76	Stiffness increase of red blood cells during storage. Microsystems and Nanoengineering, 2018, 4, .	3.4	53
77	Nonlinear fracture toughness measurement and crack propagation resistance of functionalized graphene multilayers. Science Advances, 2018, 4, eaao7202.	4.7	72
78	A Three-Dimensional Magnetic Tweezer System for Intraembryonic Navigation and Measurement. IEEE Transactions on Robotics, 2018, 34, 240-247.	7.3	52
79	Microdevice arrays with strain sensors for 3D mechanical stimulation and monitoring of engineered tissues. Biomaterials, 2018, 172, 30-40.	5.7	34
80	Effect of lattice stacking orientation and local thickness variation on the mechanical behavior of few layer graphene oxide. Carbon, 2018, 136, 168-175.	5.4	21
81	A Flexure-Guided Piezo Drill for Penetrating the Zona Pellucida of Mammalian Oocytes. IEEE Transactions on Biomedical Engineering, 2018, 65, 678-686.	2.5	27
82	Characterizing Inner Pressure and Stiffness of Trophoblast and Inner Cell Mass of Blastocysts. Biophysical Journal, 2018, 115, 2443-2450.	0.2	35
83	Characterizing the electrical breakdown properties of single n-i-n-n+:GaN nanowires. Applied Physics Letters, 2018, 113, .	1.5	4
84	Editorial for Special Issue on Intelligent Control and Computing in Advanced Robotics. International Journal of Automation and Computing, 2018, 15, 513-514.	4.5	0
85	SMC Difference of Normal and Cancerous Human Urothelial Cells Quantified with an Opto-Electrokinetic Device. , 2018, , .		2
86	A Feedforward Mechanism Mediated by Mechanosensitive Ion Channel PIEZO1 and Tissue Mechanics Promotes Glioma Aggression. Neuron, 2018, 100, 799-815.e7.	3.8	241
87	An autoantibody identifies arrhythmogenic right ventricular cardiomyopathy and participates in its pathogenesis. European Heart Journal, 2018, 39, 3932-3944.	1.0	114
88	Static and dynamic calibration of torsional spring constants of cantilevers. Review of Scientific Instruments, 2018, 89, 093701.	0.6	4
89	Automated Non-Invasive Measurement of Single Sperm's Motility and Morphology. IEEE Transactions on Medical Imaging, 2018, 37, 2257-2265.	5.4	28
90	Mechanical stability of the cell nucleus: roles played by the cytoskeleton in nuclear deformation and strain recovery. Journal of Cell Science, 2018, 131, .	1.2	64

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91	A Paper-Based Piezoelectric Accelerometer. <i>Micromachines</i> , 2018, 9, 19.	1.4	50
92	Effect of Cell Inner Pressure on Deposition Volume in Microinjection. <i>Langmuir</i> , 2018, 34, 10287-10292.	1.6	8
93	Microdevice Platform for Continuous Measurement of Contractility, Beating Rate, and Beating Rhythm of Human-Induced Pluripotent Stem Cell-Cardiomyocytes inside a Controlled Incubator Environment. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 21173-21183.	4.0	35
94	A System for Automated Detection of Ampoule Injection Impurities. <i>IEEE Transactions on Automation Science and Engineering</i> , 2017, 14, 1119-1128.	3.4	14
95	Guest Editorial Special Section on the Thirteenth IEEE International Symposium on Safety, Security, and Rescue Robotics. <i>IEEE Transactions on Automation Science and Engineering</i> , 2017, 14, 3-4.	3.4	0
96	Appendix C: Automated Vitrification of Mammalian Embryos on a Digital Microfluidic Device. <i>Methods in Molecular Biology</i> , 2017, 1568, 309-316.	0.4	2
97	Coordinating Biointeraction and Bioreaction of a Nanocarrier Material and an Anticancer Drug to Overcome Membrane Rigidity and Target Mitochondria in Multidrug-Resistant Cancer Cells. <i>Advanced Functional Materials</i> , 2017, 27, 1700804.	7.8	29
98	Cell and Tissue Scale Forces Coregulate Fgfr2 -Dependent Tetrads and Rosettes in the Mouse Embryo. <i>Biophysical Journal</i> , 2017, 112, 2209-2218.	0.2	15
99	Moldable elastomeric polyester-carbon nanotube scaffolds for cardiac tissue engineering. <i>Acta Biomaterialia</i> , 2017, 52, 81-91.	4.1	135
100	Automated Robotic Measurement of 3-D Cell Morphologies. <i>IEEE Robotics and Automation Letters</i> , 2017, 2, 499-505.	3.3	22
101	Robotic Pick-And-Place of Multiple Embryos for Vitrification. <i>IEEE Robotics and Automation Letters</i> , 2017, 2, 570-576.	3.3	27
102	MEMS-based platforms for mechanical manipulation and characterization of cells. <i>Journal of Micromechanics and Microengineering</i> , 2017, 27, 123003.	1.5	36
103	Role of graphene in enhancing the mechanical properties of TiO ₂ /graphene heterostructures. <i>Nanoscale</i> , 2017, 9, 11678-11684.	2.8	22
104	Three-dimensional robotic control of a 5-micrometer magnetic bead for intra-embryonic navigation and measurement. , 2017, , .		1
105	Microfluidic measurement of RBC bending stiffness changes in blood storage. , 2017, , .		3
106	A MEMS device for fracture toughness measurement of 2D nano films under TEM imaging. , 2017, , .		0
107	Microfluidic delivery of genome-editing materials into iPS-cardiomyocytes using synergistic electroporation and shear stress. , 2017, , .		0
108	Microdevice arrays for identifying 3D mechanical stimulation conditions in tissue engineering. , 2017, , .		0

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109	Microfabricated in-chip magnetic tweezers for intra-embryonic measurement. , 2017, , .		0
110	An automated system for investigating sperm orientation in fluid flow. , 2016, , .		1
111	Stiffening of sickle cell trait red blood cells under simulated strenuous exercise conditions. Microsystems and Nanoengineering, 2016, 2, 16061.	3.4	9
112	Robotic fluidic jet for automated cellular and intracellular mechanical characterization. , 2016, , .		4
113	Microfluidic Assessment of Frying Oil Degradation. Scientific Reports, 2016, 6, 27970.	1.6	11
114	A Stick-Slip Positioning Stage Robust to Load Variations. IEEE/ASME Transactions on Mechatronics, 2016, 21, 2165-2173.	3.7	33
115	AGPDMS electrodes for single cell impedance spectroscopy. , 2016, , .		0
116	A microfluidic system for assessing frying oil quality. , 2016, , .		0
117	A MEMS<i>XY</i>-stage integrating compliant mechanism for nanopositioning at sub-nanometer resolution. Journal of Micromechanics and Microengineering, 2016, 26, 025014.	1.5	25
118	<i>In situ</i>TEM tensile testing of carbon-linked graphene oxide nanosheets using a MEMS device. Nanotechnology, 2016, 27, 28LT01.	1.3	20
119	Embedded silver PDMS electrodes for single cell electrical impedance spectroscopy. Journal of Micromechanics and Microengineering, 2016, 26, 095006.	1.5	13
120	Mechanical properties of wrinkled graphene generated by topological defects. Carbon, 2016, 108, 204-214.	5.4	72
121	Human sperm rheotaxis: a passive physical process. Scientific Reports, 2016, 6, 23553.	1.6	83
122	Recent advances in nanorobotic manipulation inside scanning electron microscopes. Microsystems and Nanoengineering, 2016, 2, 16024.	3.4	133
123	A Review of Nanomanipulation in Scanning Electron Microscopes. , 2016, , 347-379.		1
124	A Closed-Loop Controlled Nanomanipulation System for Probing Nanostructures Inside Scanning Electron Microscopes. IEEE/ASME Transactions on Mechatronics, 2016, 21, 1233-1241.	3.7	48
125	A microfabricated platform with on-chip strain sensing and hydrogel arrays for 3D mechanical stimulation of cells. , 2016, , .		2
126	Interfacial Shear Strength of Multilayer Graphene Oxide Films. ACS Nano, 2016, 10, 1939-1947.	7.3	64

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127	A microfabricated platform with hydrogel arrays for 3D mechanical stimulation of cells. <i>Acta Biomaterialia</i> , 2016, 34, 113-124.	4.1	34
128	Accuracy analysis of a multi-closed-loop deployable mechanism. <i>Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science</i> , 2016, 230, 611-621.	1.1	16
129	Microinjection Technique for Assessment of Gap Junction Function. <i>Methods in Molecular Biology</i> , 2016, 1437, 145-154.	0.4	4
130	Stimuli-Responsive Drug Delivery Microchips. , 2016, , 3833-3840.		0
131	A MEMS XY-stage with sub-nanometer positioning resolution. , 2015, , .		1
132	Voyage inside the cell: Microsystems and nanoengineering for intracellular measurement and manipulation. <i>Microsystems and Nanoengineering</i> , 2015, 1, .	3.4	66
133	Mechanical characterization of thin films using a MEMS device inside SEM. , 2015, , .		5
134	A fully monolithic microfluidic device for counting blood cells from raw blood. , 2015, , .		0
135	Mechanical differences of sickle cell trait (SCT) and normal red blood cells. <i>Lab on A Chip</i> , 2015, 15, 3138-3146.	3.1	25
136	Automated micro-aspiration of mouse embryo limb bud tissue. , 2015, , .		2
137	On-chip sample preparation for complete blood count from raw blood. <i>Lab on A Chip</i> , 2015, 15, 1533-1544.	3.1	36
138	Automated robotic vitrification of embryos. , 2015, , .		2
139	Decreased deformability of lymphocytes in chronic lymphocytic leukemia. <i>Scientific Reports</i> , 2015, 5, 7613.	1.6	41
140	Automated Vitrification of Embryos: A Robotics Approach. <i>IEEE Robotics and Automation Magazine</i> , 2015, 22, 33-40.	2.2	36
141	Anisotropic stress orients remodelling of mammalian limb bud ectoderm. <i>Nature Cell Biology</i> , 2015, 17, 569-579.	4.6	102
142	Suspended, Shrinkage-Free, Electrospun PLGA Nanofibrous Scaffold for Skin Tissue Engineering. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 10872-10877.	4.0	82
143	Evolutionarily conserved intercalated disc protein Tmem65 regulates cardiac conduction and connexin 43 function. <i>Nature Communications</i> , 2015, 6, 8391.	5.8	35
144	Polyacrylamide gel substrates that simulate the mechanical stiffness of normal and malignant neuronal tissues increase protoporphyrin IX synthesis in glioma cells. <i>Journal of Biomedical Optics</i> , 2015, 20, 098002.	1.4	20

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145	Strengthening in Graphene Oxide Nanosheets: Bridging the Gap between Interplanar and Intraplanar Fracture. Nano Letters, 2015, 15, 6528-6534.	4.5	61
146	High strength measurement of monolayer graphene oxide. Carbon, 2015, 81, 497-504.	5.4	138
147	Robotic Adherent Cell Injection for Characterizing Cell-Cell Communication. IEEE Transactions on Biomedical Engineering, 2015, 62, 119-125.	2.5	65
148	Stimuli-Responsive Drug Delivery Microchips. , 2015, , 1-9.		0
149	A system for automated counting of fetal and maternal red blood cells in clinical KB test. , 2014, , .		0
150	Fluorescence and SEM correlative microscopy for nanomanipulation of subcellular structures. Light: Science and Applications, 2014, 3, e224-e224.	7.7	19
151	Characterization of red blood cell deformability change during blood storage. , 2014, , .		0
152	Mechanical characterization of cancer cell nuclei in situ. , 2014, , .		0
153	Closed-loop controlled nanoprobng inside SEM. , 2014, , .		4
154	Correlative microscopy for nanomanipulation of sub-cellular structures. , 2014, , .		3
155	Locating End-Effector Tips in Robotic Micromanipulation. IEEE Transactions on Robotics, 2014, 30, 125-130.	7.3	53
156	High-throughput measurement of gap junctional intercellular communication. American Journal of Physiology - Heart and Circulatory Physiology, 2014, 306, H1708-H1713.	1.5	15
157	Automated microrobotic characterization of cell-cell communication. , 2014, , .		1
158	Microfabricated perfusable cardiac biowire: a platform that mimics native cardiac bundle. Lab on A Chip, 2014, 14, 869-882.	3.1	121
159	A review of non-contact micro- and nano-printing technologies. Journal of Micromechanics and Microengineering, 2014, 24, 053001.	1.5	110
160	Nano-Dissection and Sequencing of DNA at Single Sub-Nuclear Structures. Small, 2014, 10, 3267-3274.	5.2	19
161	Automated vitrification of mammalian embryos on a digital microfluidic device. , 2014, , .		5
162	Robotic Probing of Nanostructures inside Scanning Electron Microscopy. IEEE Transactions on Robotics, 2014, 30, 758-765.	7.3	28

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163	Characterization of red blood cell deformability change during blood storage. Lab on A Chip, 2014, 14, 577-583.	3.1	62
164	Controlled ultrasonic micro-dissection of thin tissue sections. Biomedical Microdevices, 2014, 16, 567-573.	1.4	5
165	A System for Counting Fetal and Maternal Red Blood Cells. IEEE Transactions on Biomedical Engineering, 2014, 61, 2823-2829.	2.5	25
166	Characterizing mechanical behavior of atomically thin films: A review. Journal of Materials Research, 2014, 29, 338-347.	1.2	34
167	<i>In Situ</i> Mechanical Characterization of the Cell Nucleus by Atomic Force Microscopy. ACS Nano, 2014, 8, 3821-3828.	7.3	176
168	Biophysical Characterization of Bladder Cancer Cells with Different Metastatic Potential. Cell Biochemistry and Biophysics, 2014, 68, 241-246.	0.9	47
169	Digital Microfluidic Processing of Mammalian Embryos for Vitrification. PLoS ONE, 2014, 9, e108128.	1.1	41
170	TMEM43 Mutation p.S358L Alters Intercalated Disc Protein Expression and Reduces Conduction Velocity in Arrhythmogenic Right Ventricular Cardiomyopathy. PLoS ONE, 2014, 9, e109128.	1.1	31
171	Electrical measurement of red blood cell deformability on a microfluidic device. Lab on A Chip, 2013, 13, 3275.	3.1	83
172	Automated Pick-Place of Silicon Nanowires. IEEE Transactions on Automation Science and Engineering, 2013, 10, 554-561.	3.4	59
173	Automated Micropipette Aspiration of Single Cells. Annals of Biomedical Engineering, 2013, 41, 1208-1216.	1.3	77
174	Rapid measurement of specific membrane capacitance and cytoplasm conductivity on single cells. , 2013, , .		2
175	Locating end-effector tips in automated micromanipulation. , 2013, , .		5
176	Automated nanoprobing under scanning electron microscopy. , 2013, , .		3
177	Quantitative Analysis of Locomotive Behavior of Human Sperm Head and Tail. IEEE Transactions on Biomedical Engineering, 2013, 60, 390-396.	2.5	42
178	A Load-Lock-Compatible Nanomanipulation System for Scanning Electron Microscope. IEEE/ASME Transactions on Mechatronics, 2013, 18, 230-237.	3.7	68
179	Microfluidic characterization of specific membrane capacitance and cytoplasm conductivity of single cells. Biosensors and Bioelectronics, 2013, 42, 496-502.	5.3	58
180	Nanorobotic Manipulation of 1D Nanomaterials in Scanning Electron Microscopes. , 2013, , 155-165.		2

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181	Recent advances in microfluidic techniques for single-cell biophysical characterization. Lab on A Chip, 2013, 13, 2464.	3.1	229
182	Determination of local and global elastic moduli of valve interstitial cells cultured on soft substrates. Journal of Biomechanics, 2013, 46, 1967-1971.	0.9	50
183	Partially filled electrodes for digital microfluidic devices. Applied Physics Letters, 2013, 103, 024103.	1.5	11
184	Mesenchymal stem cell mechanobiology and emerging experimental platforms. Journal of the Royal Society Interface, 2013, 10, 20130179.	1.5	120
185	Microfluidic devices for single-cell trapping and automated micro-robotic injection. , 2013, , 351-365e.		1
186	Mechanical characterization of benign and malignant urothelial cells from voided urine. Applied Physics Letters, 2013, 102, .	1.5	25
187	Microdevice array-based identification of distinct mechanobiological response profiles in layer-specific valve interstitial cells. Integrative Biology (United Kingdom), 2013, 5, 673.	0.6	46
188	Pneumatically actuated devices for cell manipulation. , 2013, , .		0
189	Human Sperm Tracking, Analysis, and Manipulation. , 2013, , 251-264.		4
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