

Fumihito Arai

List of Publications by Year in descending order

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532
papers

6,951
citations

94269

37
h-index

106150

65
g-index

536
all docs

536
docs citations

536
times ranked

5259
citing authors

#	ARTICLE	IF	CITATIONS
1	Intelligent Image-Activated Cell Sorting. Cell, 2018, 175, 266-276.e13.	13.5	395
2	Assembly of nanodevices with carbon nanotubes through nanorobotic manipulations. Proceedings of the IEEE, 2003, 9, 1803-1818.	16.4	293
3	Turbulence Activates Platelet Biogenesis to Enable Clinical Scale ExVivo Production. Cell, 2018, 174, 636-648.e18.	13.5	218
4	On-chip magnetically actuated robot with ultrasonic vibration for single cell manipulations. Lab on A Chip, 2011, 11, 2049.	3.1	163
5	High-speed separation system of randomly suspended single living cells by laser trap and dielectrophoresis. Electrophoresis, 2001, 22, 283-288.	1.3	148
6	Electron-beam-induced deposition with carbon nanotube emitters. Applied Physics Letters, 2002, 81, 1919-1921.	1.5	147
7	Label-free chemical imaging flow cytometry by high-speed multicolor stimulated Raman scattering. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 15842-15848.	3.3	130
8	Synchronized laser micromanipulation of multiple targets along each trajectory by single laser. Applied Physics Letters, 2004, 85, 4301.	1.5	127
9	Raman image-activated cell sorting. Nature Communications, 2020, 11, 3452.	5.8	116
10	On chip single-cell separation and immobilization using optical tweezers and thermosensitive hydrogel. Lab on A Chip, 2005, 5, 1399.	3.1	107
11	Destructive Constructions of Nanostructures With Carbon Nanotubes Through Nanorobotic Manipulation. IEEE/ASME Transactions on Mechatronics, 2004, 9, 350-357.	3.7	102
12	High-throughput label-free molecular fingerprinting flow cytometry. Science Advances, 2019, 5, eaau0241.	4.7	102
13	Micro manipulation based on micro physics-strategy based on attractive force reduction and stress measurement. , 0, , .		99
14	Red blood cell fatigue evaluation based on the close-encountering point between extensibility and recoverability. Lab on A Chip, 2014, 14, 1135.	3.1	98
15	Intelligent image-activated cell sorting 2.0. Lab on A Chip, 2020, 20, 2263-2273.	3.1	93
16	Multi-beam bilateral teleoperation of holographic optical tweezers. Optics Express, 2012, 20, 3633.	1.7	90
17	New catheter driving method using linear stepping mechanism for intravascular neurosurgery. , 0, , .		89
18	High-precision motion of magnetic microrobot with ultrasonic levitation for 3-D rotation of single oocyte. International Journal of Robotics Research, 2016, 35, 1445-1458.	5.8	80

#	ARTICLE	IF	CITATIONS
19	Driving method of microtool by horizontally arranged permanent magnets for single cell manipulation. <i>Applied Physics Letters</i> , 2010, 97, .	1.5	78
20	In situ measurement of Young's modulus of carbon nanotubes inside a TEM through a hybrid nanorobotic manipulation system. <i>IEEE Nanotechnology Magazine</i> , 2006, 5, 243-248.	1.1	77
21	On-chip 3D rotation of oocyte based on a vibration-induced local whirling flow. <i>Microsystems and Nanoengineering</i> , 2015, 1, .	3.4	73
22	A practical guide to intelligent image-activated cell sorting. <i>Nature Protocols</i> , 2019, 14, 2370-2415.	5.5	71
23	Development of a New Rapid Isolation Device for Circulating Tumor Cells (CTCs) Using 3D Palladium Filter and Its Application for Genetic Analysis. <i>PLoS ONE</i> , 2014, 9, e88821.	1.1	69
24	Isolation and extraction of target microbes using thermal sol-gel transformation. <i>Analyst, The</i> , 2003, 128, 547.	1.7	68
25	On-chip microrobot for investigating the response of aquatic microorganisms to mechanical stimulation. <i>Lab on A Chip</i> , 2013, 13, 1070.	3.1	68
26	An In Vitro Patient-Specific Biological Model of the Cerebral Artery Reproduced with a Membranous Configuration for Simulating Endovascular Intervention. <i>Journal of Robotics and Mechatronics</i> , 2005, 17, 327-334.	0.5	67
27	Local streamline generation by mechanical oscillation in a microfluidic chip for noncontact cell manipulations. <i>Applied Physics Letters</i> , 2012, 101, 074102.	1.5	65
28	On-chip cell sorting by high-speed local-flow control using dual membrane pumps. <i>Lab on A Chip</i> , 2017, 17, 2760-2767.	3.1	59
29	Adhesion forces reduction for micro manipulation based on micro physics. , 0, , .		58
30	Steering mechanism of underwater micro mobile robot. , 0, , .		57
31	Nanomanipulation of single influenza virus using dielectrophoretic concentration and optical tweezers for single virus infection to a specific cell on a microfluidic chip. <i>Microfluidics and Nanofluidics</i> , 2011, 10, 1109-1117.	1.0	57
32	A Single Cell Extraction Chip Using Vibration-Induced Whirling Flow and a Thermo-Responsive Gel Pattern. <i>Micromachines</i> , 2014, 5, 681-696.	1.4	57
33	In situ formation of a gel microbead for indirect laser micromanipulation of microorganisms. <i>Applied Physics Letters</i> , 2005, 87, 191108.	1.5	56
34	Powerful actuation of magnetized microtools by focused magnetic field for particle sorting in a chip. <i>Biomedical Microdevices</i> , 2010, 12, 745-752.	1.4	55
35	Biocompatible polymeric magnetically driven microtool for particle sorting. <i>Journal of Micro-Nano Mechatronics</i> , 2008, 4, 49-57.	1.0	48
36	A New Dimensionless Index for Evaluating Cell Stiffness-Based Deformability in Microchannel. <i>IEEE Transactions on Biomedical Engineering</i> , 2014, 61, 1187-1195.	2.5	47

#	ARTICLE	IF	CITATIONS
37	In vitro patient-tailored anatomical model of cerebral artery for evaluating medical robots and systems for intravascular neurosurgery. , 2005, , .		44
38	Flexible rope manipulation by dual manipulator system using vision sensor. , 0, , .		43
39	Precise Control of Magnetically Driven Microtools for Enucleation of Oocytes in a Microfluidic Chip. Advanced Robotics, 2011, 25, 991-1005.	1.1	41
40	Comparative Analysis of <i>kdp</i> and <i>ktr</i> Mutants Reveals Distinct Roles of the Potassium Transporters in the Model Cyanobacterium <i>Synechocystis</i> sp. Strain PCC 6803. Journal of Bacteriology, 2015, 197, 676-687.	1.0	39
41	On-Chip Enucleation of Bovine Oocytes using Microrobot-Assisted Flow-Speed Control. Micromachines, 2013, 4, 272-285.	1.4	38
42	Micro resonator using electromagnetic actuator for tactile display. , 0, , .		37
43	High speed random separation of microobject in microchip by laser manipulator and dielectrophoresis. , 0, , .		37
44	Prototyping design and automation of micro/nano manipulation system. , 0, , .		37
45	Functional gel-microbead manipulated by optical tweezers for local environment measurement in microchip. Microfluidics and Nanofluidics, 2009, 6, 383-390.	1.0	37
46	Temperature Changes in Brown Adipocytes Detected with a Bimaterial Microcantilever. Biophysical Journal, 2014, 106, 2458-2464.	0.2	37
47	Cellular Force Measurement Using a Nanometric-Probe-Integrated Microfluidic Chip with a Displacement Reduction Mechanism. Journal of Robotics and Mechatronics, 2013, 25, 277-284.	0.5	37
48	Quantitative assessment of manual and robotic microcannulation for eye surgery using new eye model. International Journal of Medical Robotics and Computer Assisted Surgery, 2015, 11, 210-217.	1.2	36
49	Cutting of carbon nanotubes assisted with oxygen gas inside a scanning electron microscope. Applied Physics Letters, 2006, 89, 113104.	1.5	35
50	A new stiffness evaluation toward high speed cell sorter. , 2010, , .		35
51	On-Chip Method to Measure Mechanical Characteristics of a Single Cell by Using Moiré Fringe. Micromachines, 2015, 6, 660-673.	1.4	34
52	Mechanical diagnosis of human erythrocytes by ultra-high speed manipulation unraveled critical time window for global cytoskeletal remodeling. Scientific Reports, 2017, 7, 43134.	1.6	32
53	Micro tri-axial force sensor for 3D bio-micromanipulation. , 0, , .		31
54	Arterial graft with elastic layer structure grown from cells. Scientific Reports, 2017, 7, 140.	1.6	31

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55	On-chip rotational manipulation of microbeads and oocytes using acoustic microstreaming generated by oscillating asymmetrical microstructures. <i>Biomicrofluidics</i> , 2019, 13, 064103.	1.2	31
56	Geometrical alignment for improving cell evaluation in a microchannel with application on multiple myeloma red blood cells. <i>RSC Advances</i> , 2014, 4, 45050-45058.	1.7	30
57	The Influence of Virus Infection on the Extracellular pH of the Host Cell Detected on Cell Membrane. <i>Frontiers in Microbiology</i> , 2016, 7, 1127.	1.5	30
58	A new pick up and release method by heating for micromanipulation. , 0, , .		29
59	Fabrication of an On-Chip Nanorobot Integrating Functional Nanomaterials for Single-Cell Punctures. <i>IEEE Transactions on Robotics</i> , 2014, 30, 59-67.	7.3	29
60	Deformable ferrofluid-based millirobot with high motion accuracy and high output force. <i>Applied Physics Letters</i> , 2021, 118, .	1.5	29
61	Avian Influenza Virus Infection of Immortalized Human Respiratory Epithelial Cells Depends upon a Delicate Balance between Hemagglutinin Acid Stability and Endosomal pH. <i>Journal of Biological Chemistry</i> , 2015, 290, 10627-10642.	1.6	28
62	Measurement of the mechanical properties of single <i>Synechocystis</i> sp. strain PCC6803 cells in different osmotic concentrations using a robot-integrated microfluidic chip. <i>Lab on A Chip</i> , 2018, 18, 1241-1249.	3.1	28
63	Micro force sensor for intravascular neurosurgery and in vivo experiment. , 0, , .		27
64	Three-dimensional bio-micromanipulation under the microscope. , 0, , .		27
65	Virus purification and enrichment by hydroxyapatite chromatography on a chip. <i>Sensors and Actuators B: Chemical</i> , 2014, 201, 185-190.	4.0	27
66	On-chip microfluid induced by oscillation of microrobot for noncontact cell transportation. <i>Applied Physics Letters</i> , 2017, 111, .	1.5	27
67	Virus Enrichment for Single Virus Infection by Using 3D Insulator Based Dielectrophoresis. <i>PLoS ONE</i> , 2014, 9, e94083.	1.1	27
68	Multimedia tele-surgery using high speed optical fiber network and its application to intravascular neurosurgery - system configuration and computer networked robotic implementation. , 0, , .		26
69	Facial expressive robotic head system for human-robot communication and its application in home environment. <i>Proceedings of the IEEE</i> , 2004, 92, 1851-1865.	16.4	26
70	Accurate dispensing system for single oocytes using air ejection. <i>Biomicrofluidics</i> , 2013, 7, 054113.	1.2	26
71	Multi-fluorescent micro-sensor for accurate measurement of pH and temperature variations in micro-environments. <i>Sensors and Actuators B: Chemical</i> , 2014, 203, 54-62.	4.0	26
72	On-Chip Transportation and Measurement of Mechanical Characteristics of Oocytes in an Open Environment. <i>Micromachines</i> , 2015, 6, 648-659.	1.4	26

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73	Wide Range Load Sensor Using Quartz Crystal Resonator for Detection of Biological Signals. IEEE Sensors Journal, 2015, 15, 1913-1919.	2.4	26
74	3D viewpoint selection and bilateral control for bio-micromanipulation. , 0, , .		25
75	Omnidirectional Actuation of Magnetically Driven Microtool for Cutting of Oocyte in a Chip. Journal of Microelectromechanical Systems, 2011, 20, 383-388.	1.7	25
76	On-chip enucleation of an oocyte by untethered microrobots. Journal of Micromechanics and Microengineering, 2014, 24, 095004.	1.5	25
77	On-Chip Tunable Cell Rotation Using Acoustically Oscillating Asymmetrical Microstructures. Micromachines, 2018, 9, 596.	1.4	25
78	Untethered Octopus-Inspired Millirobot Actuated by Regular Tetrahedron Arranged Magnetic Field. Advanced Intelligent Systems, 2020, 2, 1900148.	3.3	25
79	Structure Configuration Using Genetic Algorithm For Cellular Robotic System. , 0, , .		24
80	3D nanorobotic manipulations of multi-walled carbon nanotubes. , 0, , .		24
81	Aquaporin AqpZ Is Involved in Cell Volume Regulation and Sensitivity to Osmotic Stress in <i>Synechocystis</i> sp. Strain PCC 6803. Journal of Bacteriology, 2012, 194, 6828-6836.	1.0	24
82	Augmentation of safety in a teleoperation system for intravascular neurosurgery. Advanced Robotics, 1998, 13, 323-325.	1.1	23
83	Temporal Transition of Mechanical Characteristics of HUVEC/MSC Spheroids Using a Microfluidic Chip with Force Sensor Probes. Micromachines, 2016, 7, 221.	1.4	23
84	Microrobot with passive diamagnetic levitation for microparticle manipulations. Journal of Applied Physics, 2017, 122, .	1.1	23
85	Improvement of the Measurement Range and Temperature Characteristics of a Load Sensor Using a Quartz Crystal Resonator with All Crystal Layer Components. Sensors, 2017, 17, 1067.	2.1	23
86	High-speed microparticle isolation unlimited by Poisson statistics. Lab on A Chip, 2019, 19, 2669-2677.	3.1	23
87	Touch sensor for micromanipulation with pipette using lead-free (K,Na)(Nb,Ta)O ₃ piezoelectric ceramics. Journal of Applied Physics, 2005, 98, 094505.	1.1	22
88	Magnetically Actuated Cell-Robot System: Precise Control, Manipulation, and Multimode Conversion. Small, 2022, 18, e2105414.	5.2	21
89	Fuzzy Inference Integrated 3-D Measuring System With LED Displacement Sensor and Vision System. Journal of Intelligent and Fuzzy Systems, 1993, 1, 63-72.	0.8	20
90	Adhesion-type micro end effector for micromanipulation. , 0, , .		20

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91	Ultra-small site temperature sensing by carbon nanotube thermal probes. , 0, , .		20
92	Photoprocessible Hydrogel Microsensor for Local Environment Measurement on a Microfluidic Chip. IEEE/ASME Transactions on Mechatronics, 2011, 16, 845-852.	3.7	20
93	Miniaturized load sensor using quartz crystal resonator constructed through microfabrication and bonding. ROBOMECH Journal, 2014, 1, .	0.9	20
94	Steering mechanism and swimming experiment of micro mobile robot in water. , 0, , .		19
95	Distributed virtual environment for intravascular tele-surgery using multimedia telecommunication. , 1996, , .		19
96	New force measurement and micro grasping method using laser Raman spectrophotometer. , 0, , .		19
97	High Resolution Cell Positioning Based on a Flow Reduction Mechanism for Enhancing Deformability Mapping. Micromachines, 2014, 5, 1188-1201.	1.4	19
98	On-chip actuation transmitter for enhancing the dynamic response of cell manipulation using a macro-scale pump. Biomicrofluidics, 2015, 9, 014114.	1.2	19
99	Rare cell isolation and recovery on open-channel microfluidic chip. PLoS ONE, 2017, 12, e0174937.	1.1	19
100	Human-robot mutual communication system. , 0, , .		18
101	Real-time <i>in vitro</i> intravascular reconstruction and navigation for endovascular aortic stent grafting. International Journal of Medical Robotics and Computer Assisted Surgery, 2016, 12, 648-657.	1.2	18
102	A Versatile Optoelectronic Tweezer System for Micro-Objects Manipulation: Transportation, Patterning, Sorting, Rotating and Storage. Micromachines, 2021, 12, 271.	1.4	18
103	Evaluation on flexibility of swarm intelligent system. , 0, , .		17
104	Three-dimensional nanoassembly of multi-walled carbon nanotubes through nanorobotic manipulations by using electron-beam-induced deposition. , 0, , .		17
105	Continuous Mechanical Indexing of Single-Cell Spheroids Using a Robot-Integrated Microfluidic Chip. IEEE Robotics and Automation Letters, 2019, 4, 2973-2980.	3.3	17
106	Bio-micromanipulation (new direction for operation improvement). , 0, , .		16
107	Group behavior control for MARS (micro autonomous robotic system). , 0, , .		16
108	Multiscale fabrication of a transparent circulation type blood vessel simulator. Biomicrofluidics, 2010, 4, 046505.	1.2	16

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109	Microfluidic perfusion culture system for multilayer artery tissue models. <i>Biomicrofluidics</i> , 2014, 8, 064113.	1.2	16
110	Self-Propelled Swimming Microrobot Using Electroosmotic Propulsion and Biofuel Cell. <i>IEEE Robotics and Automation Letters</i> , 2018, 3, 1787-1792.	3.3	16
111	A surgical simulator for peeling the inner limiting membrane during wet conditions. <i>PLoS ONE</i> , 2018, 13, e0196131.	1.1	16
112	Parallel beam micro sensor/actuator unit using PZT thin films and its application examples. , 0, , .		15
113	Vision based navigation system for autonomous mobile robot with global matching. , 0, , .		15
114	Facial expression of robot face for human-robot mutual communication. , 0, , .		15
115	Egg-in-Cube: Design and Fabrication of a Novel Artificial Eggshell with Functionalized Surface. <i>PLoS ONE</i> , 2015, 10, e0118624.	1.1	15
116	Manipulating Microrobots Using Balanced Magnetic and Buoyancy Forces. <i>Micromachines</i> , 2018, 9, 50.	1.4	15
117	Local traction force in the proximal leading process triggers nuclear translocation during neuronal migration. <i>Neuroscience Research</i> , 2019, 142, 38-48.	1.0	15
118	Weakening of resistance force by cellâ€“ECM interactions regulate cell migration directionality and pattern formation. <i>Communications Biology</i> , 2021, 4, 808.	2.0	15
119	A Study on Active Catheter System. Structure, Experimental Results and Characteristic Evaluation of Active Catheter with Multi D.O.F.. <i>Journal of the Robotics Society of Japan</i> , 1996, 14, 820-835.	0.0	15
120	Operational assistance for straight-line operation of rough terrain crane. , 0, , .		14
121	Selective manipulation of a microbe in a microchannel using a teleoperated laser scanning manipulator and dielectrophoresis. <i>Advanced Robotics</i> , 1998, 13, 343-345.	1.1	14
122	Force display method to improve safety in teleoperation system for intravascular neurosurgery. , 0, , .		14
123	Assistance system for crane operation with haptic display - operational assistance to suppress round payload swing. , 0, , .		14
124	Patient-specific neurovascular simulator for evaluating the performance of medical robots and instruments. , 0, , .		14
125	High speed microrobot actuation in a microfluidic chip by levitated structure with riblet surface. , 2012, , .		14
126	Application of an indicator-immobilized-gel-sheet for measuring the pH surrounding a calcium phosphate-based biomaterial. <i>Journal of Biomaterials Applications</i> , 2017, 31, 1296-1304.	1.2	14

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127	3D 6DOF Manipulation of Microbead by Laser Tweezers. Journal of Robotics and Mechatronics, 2006, 18, 153-159.	0.5	14
128	Approach to distributed micro robotic system. Development of micro line trace robot and autonomous micro robotic system. , 0, , .		13
129	Sleep Quality Estimation based on Chaos Analysis for Heart Rate Variability. IEEJ Transactions on Electronics, Information and Systems, 2005, 125, 43-49.	0.1	13
130	A Novel Single Virus Infection System Reveals That Influenza Virus Preferentially Infects Cells in G1 Phase. PLoS ONE, 2013, 8, e67011.	1.1	13
131	Self-organizing multiple robotic system (a population control through biologically inspired immune) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf		12
132	Vision based navigation system by variable template matching for autonomous mobile robot. , 0, , .		12
133	Dynamical analysis and suppression of human hunting in the excavator operation. , 0, , .		12
134	On-demand Production of Emulsion Droplets Over a Wide Range of Sizes. Advanced Robotics, 2010, 24, 2005-2018.	1.1	12
135	Continuous-wave laser-assisted injection of single magnetic nanobeads into living cells. Sensors and Actuators B: Chemical, 2016, 230, 298-305.	4.0	12
136	A new type of artificial larynx using a PZT ceramics vibrator as a sound source. IEEE/ASME Transactions on Mechatronics, 2000, 5, 221-225.	3.7	11
137	Catch, load and launch toward on-chip active cell evaluation. , 2016, , .		11
138	Evaluating Young's Modulus of Single Yeast Cells Based on Compression Using an Atomic Force Microscope with a Flat Tip. Microscopy and Microanalysis, 2021, 27, 392-399.	0.2	11
139	In-Situ Formation of a Gel Microbead for Laser Micromanipulation of Microorganisms, DNA, and Viruses. Journal of Robotics and Mechatronics, 2007, 19, 569-576.	0.5	11
140	Assistance system for crane operation using multimodal display. , 0, , .		10
141	Cooperative path planning and navigation based on distributed sensing. , 0, , .		10
142	The design and development of a four-fingered robot hand (adjustment of grasping position by using) Tj ETQq0 0 0 rgBT /Overlock 10 Tf		10
143	Hybrid nanorobotic manipulation system inside scanning electron microscope and transmission electron microscope. , 0, , .		10
144	High sensitive micro touch sensor with piezoelectric thin film for micro pipetting works under microscope. , 2004, , .		10

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145	Strategy of Picking Up Thin Plate by Robot Hand Using Deformation of Soft Fingertip. , 0, , .		10
146	Selective injection and laser manipulation of nanotool inside a specific cell using Optical pH regulation and optical tweezers. , 2011, , .		10
147	Vibration-assisted optical injection of a single fluorescent sensor into a target cell. Sensors and Actuators B: Chemical, 2015, 220, 40-49.	4.0	10
148	Influenza virus replication raises the temperature of cells. Virus Research, 2018, 257, 94-101.	1.1	10
149	Sensor Fusion System Using Recurrent Fuzzy Inference. Journal of Intelligent and Robotic Systems: Theory and Applications, 1998, 23, 201-216.	2.0	9
150	Teleoperated laser manipulator with dielectrophoretic assistance for selective separation of a microbe. , 0, , .		9
151	Carbon nanotubes based position sensors. , 0, , .		9
152	Development of a decoupling wire driven exoskeletal microarm for endoscopic Submucosal Dissection. , 2010, , .		9
153	Catheter Insertion Reference Trajectory Construction Method Using Photoelastic Stress Analysis for Quantification of <i>Respect for Tissue</i> During Endovascular Surgery Simulation. International Journal of Optomechatronics, 2011, 5, 322-339.	3.3	9
154	3D fabrication and manipulation of hybrid nanorobots by laser. , 2013, , .		9
155	Three dimensional rotation of bovine oocyte by using magnetically driven on-chip robot. , 2014, , .		9
156	Laser-driven gel microtool for single-cell manipulation based on temperature control with a photothermal conversion material. Applied Physics Letters, 2016, 109, 254102.	1.5	9
157	Force sensor probe using quartz crystal resonator with wide measurement range for mechanical characterization of HepG2 spheroid. Sensors and Actuators A: Physical, 2017, 265, 202-210.	2.0	9
158	Parallel trapping of single motile cells based on vibration-induced flow. Microfluidics and Nanofluidics, 2018, 22, 1.	1.0	9
159	An angiogenesis platform using a cubic artificial eggshell with patterned blood vessels on chicken chorioallantoic membrane. PLoS ONE, 2017, 12, e0175595.	1.1	9
160	New PZT actuator using piezoelectric thin film on parallel plate structure. , 0, , .		8
161	Microflow system and transportation of DNA molecule by dielectrophoretic force utilizing the conformational transition in the higher order structure of DNA molecule. , 0, , .		8
162	Sensor selection by reliability based on possibility measure. , 0, , .		8

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163	Dome shaped touch sensor using PZT thin film made by hydrothermal method. , 0, , .		8
164	Mechanical micro-dissection by microknife using ultrasonic vibration and ultra fine touch probe sensor. , 0, , .		8
165	3D nanoassembly of carbon nanotubes through nanorobotic manipulations. , 0, , .		8
166	Pico-Newton order force measurement using a calibrated carbon nanotube probe by electromechanical resonance. , 0, , .		8
167	On-chip single particle loading and dispensing. , 2011, , .		8
168	Air-Flow-Based Single-Cell Dispensing System. <i>Advanced Robotics</i> , 2012, 26, 291-306.	1.1	8
169	Drilling of Carbon Fiber Reinforced Plastic Composites with Feedback Control Based on Cutting Force. <i>Journal of Advanced Mechanical Design, Systems and Manufacturing</i> , 2012, 6, 52-64.	0.3	8
170	Phase decomposition of a cell passing through a μ-channel: A method for improving the evaluation of cell stiffness. , 2012, , .		8
171	High throughput mechanical characterization of oocyte using robot integrated microfluidic chip. , 2013, , .		8
172	Large Indentation Method to Measure Elasticity of Cell in Robot-Integrated Microfluidic Chip. <i>IEEE Robotics and Automation Letters</i> , 2017, 2, 2002-2007.	3.3	8
173	Hydrogel Heart Model with Temperature Memory Properties for Surgical Simulation. <i>Sensors</i> , 2019, 19, 1102.	2.1	8
174	Magnetically Driven Bionic Millirobots with a Low-Delay Automated Actuation System for Bioparticles Manipulation. <i>Micromachines</i> , 2020, 11, 231.	1.4	8
175	Breakthrough in purification of fossil pollen for dating of sediments by a new large-particle on-chip sorter. <i>Science Advances</i> , 2021, 7, .	4.7	8
176	Miniaturization effect of electroosmotic self-propulsive microswimmer powered by biofuel cell. <i>ROBOMECH Journal</i> , 2019, 6, .	0.9	8
177	Mechanism and swimming experiment of micro mobile robot in water. , 0, , .		7
178	Operational assistance of the crane system by the interactive adaptation interface. , 0, , .		7
179	Mood and task coordination of home robots. , 0, , .		7
180	Towards Linear Nano Servomotors with Integrated Position Sensing. , 0, , .		7

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181	Generation of concentration gradient from a wave-like pattern by high frequency vibration of liquid-liquid interface. Biomedical Microdevices, 2008, 10, 329-335.	1.4	7
182	Photoelastic stress analysis in blood vessel phantoms: three-dimensional visualization and saccular aneurysm with bleb. International Journal of Medical Robotics and Computer Assisted Surgery, 2011, 7, 33-41.	1.2	7
183	Evaluation of thermal conductivity of single carbon nanotubes in air and liquid using a fluorescence temperature sensor. Applied Physics Letters, 2013, 103, .	1.5	7
184	Microrobotic Platform for Single Motile Microorganism Investigation. Micromachines, 2017, 8, 295.	1.4	7
185	Untethered Octopus-Inspired Millirobot Actuated by Regular Tetrahedron Arranged Magnetic Field. Advanced Intelligent Systems, 2020, 2, 2070053.	3.3	7
186	On-Demand and Size-Controlled Production of Droplets by Magnetically Driven Microtool. Journal of Robotics and Mechatronics, 2012, 24, 133-140.	0.5	7
187	3D position and orientation control method of micro object by dielectrophoresis. , 0, , .		6
188	3D bio-micromanipulation (bilateral control system using micro tri-axial force sensor). , 0, , .		6
189	A relaxation system adapting to user's condition-identification of relationship between massage intensity and heart rate variability. , 0, , .		6
190	Micro touch sensor array made by hydrothermal method. , 0, , .		6
191	An in vitro soft membranous model of individual human cerebral artery reproduced with visco-elastic behavior. , 2004, , .		6
192	Patient-Tailored Cerebral Arterial Model for Simulating Neurovascular Intervention (1st Report, In) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 Hen/Transactions of the Japan Society of Mechanical Engineers, Part C, 2005, 71, 2362-2369.	0.2	6
193	Control and sensing platform of magnetically driven microtool for on-chip single cell evaluation. , 2010, , .		6
194	Local Ablation by a Microelectric Knife: Enucleation of an Oocyte. IEEE Nanotechnology Magazine, 2012, 6, 20-25.	0.9	6
195	Untethered micro-robot with gripping mechanism for on-chip cell surgery utilizing outer magnetic force. , 2014, , .		6
196	Hybrid stent device of flow-diverting effect and stent-assisted coil embolization formed by fractal structure. Medical and Biological Engineering and Computing, 2016, 54, 831-841.	1.6	6
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