Dong Sun

List of Publications by Year
in descending order

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398	10,921	29994 54	49773 87
papers	citations	h-index	g-index

404	404	404	9017
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.	3.1	372
2	Position synchronization of multiple motion axes with adaptive coupling control. Automatica, 2003, 39, 997-1005.	3.0	260
3	Superhydrophobic-like tunable droplet bouncing on slippery liquid interfaces. Nature Communications, 2015, 6, 7986.	5.8	229
4	Leader-Follower Formation Control of Multiple Non-holonomic Mobile Robots Incorporating a Receding-horizon Scheme. International Journal of Robotics Research, 2010, 29, 727-747.	5.8	206
5	Enclosing a target by nonholonomic mobile robots with bearing-only measurements. Automatica, 2015, 53, 400-407.	3.0	199
6	Adaptive synchronized control for coordination of multirobot assembly tasks. IEEE Transactions on Automation Science and Engineering, 2002, 18, 498-510.	2.4	193
7	Moving Groups of Microparticles Into Array With a Robotâ€“Tweezers Manipulation System. IEEE Transactions on Robotics, 2012, 28, 1069-1080.	7.3	193
8	A Synchronization Approach to Trajectory Tracking of Multiple Mobile Robots While Maintaining Time-Varying Formations. IEEE Transactions on Robotics, 2009, 25, 1074-1086.	7.3	187
9	Robotic Cell Injection System With Position and Force Control: Toward Automatic Batch Biomanipulation. IEEE Transactions on Robotics, 2009, 25, 727-737.	7.3	185
10	A Model-Free Cross-Coupled Control for Position Synchronization of Multi-Axis Motions: Theory and Experiments. IEEE Transactions on Control Systems Technology, 2007, 15, 306-314.	3.2	170
11	Automatic transportation of biological cells with a robot-tweezer manipulation system. International Journal of Robotics Research, 2011, 30, 1681-1694.	5.8	165
12	Flexible Fiber-Shaped Supercapacitor Based on Nickelâ€“Cobalt Double Hydroxide and Pen Ink Electrodes on Metallized Carbon Fiber. ACS Applied Materials & Interfaces, 2017, 9, 5409-5418.	4.0	147
13	Mechanical Characterization of Human Red Blood Cells Under Different Osmotic Conditions by Robotic Manipulation With Optical Tweezers. IEEE Transactions on Biomedical Engineering, 2010, 57, 1816-1825.	2.5	146
14	Slewing and vibration control of a single-link flexible manipulator by positive position feedback (PPF). Mechatronics, 2005, 15, 487-503.	2.0	143
15	Design of an enhanced nonlinear PID controller. Mechatronics, 2005, 15, 1005-1024.	2.0	143
16	Comments on Active Disturbance Rejection Control. IEEE Transactions on Industrial Electronics, 2007, 54, 3428-3429.	5.2	142
17	H/sub /spl infin// controller synthesis of fuzzy dynamic systems based on piecewise Lyapunov functions and bilinear matrix inequalities. IEEE Transactions on Fuzzy Systems, 2005, 13, 94-103.	6.5	141
18	Integration of saturated PI synchronous control and PD feedback for control of parallel manipulators. , 2006, 22, 202-207.		134

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19	Microfluidic Single-Cell Manipulation and Analysis: Methods and Applications. Micromachines, 2019, 10, 104.	1.4	131
20	Minimizing Energy Consumption of Wheeled Mobile Robots via Optimal Motion Planning. IEEE/ASME Transactions on Mechatronics, 2014, 19, 401-411.	3.7	128
21	Two-Stage Energy Management Control of Fuel Cell Plug-In Hybrid Electric Vehicles Considering Fuel Cell Longevity. IEEE Transactions on Vehicular Technology, 2012, 61, 498-508.	3.9	114
22	A PZT actuator control of a single-link flexible manipulator based on linear velocity feedback and actuator placement. Mechatronics, 2004, 14, 381-401.	2.0	108
23	Coordinated Motion Planning for Multiple Mobile Robots Along Designed Paths With Formation Requirement. IEEE/ASME Transactions on Mechatronics, 2011, 16, 1021-1031.	3.7	104
24	Energy Management Control of Microturbine-Powered Plug-In Hybrid Electric Vehicles Using the Telemetry Equivalent Consumption Minimization Strategy. IEEE Transactions on Vehicular Technology, 2011, 60, 4238-4248.	3.9	103
25	Mechanical force characterization in manipulating live cells with optical tweezers. Journal of Biomechanics, 2011, 44, 741-746.	0.9	98
26	Development of a Tracked Climbing Robot. Journal of Intelligent and Robotic Systems: Theory and Applications, 2002, 35, 427-443.	2.0	97
27	Visual-Based Impedance Control of Out-of-Plane Cell Injection Systems. IEEE Transactions on Automation Science and Engineering, 2009, 6, 565-571.	3.4	96
28	Dynamic trapping and manipulation of biological cells with optical tweezers. Automatica, 2013, 49, 1614-1625.	3.0	95
29	Dynamics Analysis and Motion Planning for Automated Cell Transportation With Optical Tweezers. IEEE/ASME Transactions on Mechatronics, 2013, 18, 706-713.	3.7	94
30	Mechanical Modeling of Biological Cells in Microinjection. IEEE Transactions on Nanobioscience, 2008, 7, 257-266.	2.2	93
31	Single Cell Transfection through Precise Microinjection with Quantitatively Controlled Injection Volumes. Scientific Reports, 2016, 6, 24127.	1.6	84
32	Development of Magnetâ€Driven and Imageâ€Guided Degradable Microrobots for the Precise Delivery of Engineered Stem Cells for Cancer Therapy. Small, 2020, 16, e1906908.	5.2	84
33	Force Sensing and Manipulation Strategy in Robot-Assisted Microinjection on Zebrafish Embryos. IEEE/ASME Transactions on Mechatronics, 2011, 16, 1002-1010.	3.7	83
34	Two-Stage Charging Strategy for Plug-In Electric Vehicles at the Residential Transformer Level. IEEE Transactions on Smart Grid, 2013, 4, 1442-1452.	6.2	80
35	Modified input shaping for a rotating single-link flexible manipulator. Journal of Sound and Vibration, 2005, 285, 187-207.	2.1	78
36	Development of a New Robot Controller Architecture with FPGA-Based IC Design for Improved High-Speed Performance. IEEE Transactions on Industrial Informatics, 2007, 3, 312-321.	7.2	77

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37	Hand Motion Classification Using a Multi-Channel Surface Electromyography Sensor. Sensors, 2012, 12, 1130-1147.	2.1	76
38	A Simple Nonlinear Velocity Estimator for High-Performance Motion Control. IEEE Transactions on Industrial Electronics, 2005, 52, 1161-1169.	5.2	75
39	Force Modeling, Identification, and Feedback Control of Robot-Assisted Needle Insertion: A Survey of the Literature. Sensors, 2018, 18, 561.	2.1	74
40	Distributed control for uniform circumnavigation of ring-coupled unicycles. Automatica, 2015, 53, 23-29.	3.0	73
41	Graphene-Bridged Multifunctional Flexible Fiber Supercapacitor with High Energy Density. ACS Applied Materials & Interfaces, 2018, 10, 28597-28607.	4.0	73
42	Localization for Multirobot Formations in Indoor Environment. IEEE/ASME Transactions on Mechatronics, 2010, 15, 561-574.	3.7	71
43	Probing the mechanobiological properties of human embryonic stem cells in cardiac differentiation by optical tweezers. Journal of Biomechanics, 2012, 45, 123-128.	0.9	67
44	A bounded controller for multirobot navigation while maintaining network connectivity in the presence of obstacles. Automatica, 2013, 49, 285-292.	3.0	65
45	Experimental Comparison of Control Approaches on Trajectory Tracking Control of a 3-DOF Parallel Robot. IEEE Transactions on Control Systems Technology, 2007, 15, 982-988.	3.2	64
46	A High-Throughput Automated Microinjection System for Human Cells With Small Size. IEEE/ASME Transactions on Mechatronics, 2016, 21, 838-850.	3.7	64
47	Observer-Based Optical Manipulation of Biological Cells With Robotic Tweezers. IEEE Transactions on Robotics, 2014, 30, 68-80.	7.3	62
48	Model Identification of a Micro Air Vehicle in Loitering Flight Based on Attitude Performance Evaluation. Journal of the American College of Radiology, 2004, 20, 702-712.	0.9	61
49	Asymptotic trajectory tracking of manipulators using uncalibrated visual feedback. IEEE/ASME Transactions on Mechatronics, 2003, 8, 87-98.	3.7	60
50	Out-of-Plane Rotation Control of Biological Cells With a Robot-Tweezers Manipulation System for Orientation-Based Cell Surgery. IEEE Transactions on Biomedical Engineering, 2019, 66, 199-207.	2.5	60
51	Modeling and performance evaluation of traveling-wave piezoelectric ultrasonic motors with analytical method. Sensors and Actuators A: Physical, 2002, 100, 84-93.	2.0	57
52	H/sub /spl infin// output feedback control of discrete-time fuzzy systems with application to chaos control. IEEE Transactions on Fuzzy Systems, 2005, 13, 531-543.	6.5	57
53	Liquid metal droplet robot. Applied Materials Today, 2020, 19, 100597.	2.3	57
54	Rapidly Exploring Random Tree Algorithm-Based Path Planning for Robot-Aided Optical Manipulation of Biological Cells. IEEE Transactions on Automation Science and Engineering, 2014, 11, 649-657.	3.4	56

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55	A dynamic priority based path planning for cooperation of multiple mobile robots in formation forming. Robotics and Computer-Integrated Manufacturing, 2014, 30, 589-596.	6.1	56
56	Highâ€Entropy Alloy (HEA)â€Coated Nanolattice Structures and Their Mechanical Properties. Advanced Engineering Materials, 2018, 20, 1700625.	1.6	56
57	Development of an Enhanced Electromagnetic Actuation System With Enlarged Workspace. IEEE/ASME Transactions on Mechatronics, 2017, 22, 2265-2276.	3.7	55
58	Micro Air Vehicle: Configuration, Analysis, Fabrication, and Test. IEEE/ASME Transactions on Mechatronics, 2004, 9, 108-117.	3.7	53
59	A universal piezo-driven ultrasonic cell microinjection system. Biomedical Microdevices, 2011, 13, 743-752.	1.4	53
60	Approaches to Robust Filtering Design of Discrete Time Fuzzy Dynamic Systems. IEEE Transactions on Fuzzy Systems, 2008, 16, 331-340.	6.5	50
61	Automated Translational and Rotational Control of Biological Cells With a Robot-Aided Optical Tweezers Manipulation System. IEEE Transactions on Automation Science and Engineering, 2016, 13, 543-551.	3.4	50
62	A simplified sheathless cell separation approach using combined gravitational-sedimentation-based prefocusing and dielectrophoretic separation. Lab on A Chip, 2018, 18, 1521-1532.	3.1	50
63	An approach to quantized consensus of continuous-time linear multi-agent systems. Automatica, 2018, 91, 98-104.	3.0	50
64	A Novel Arch-Shape Nanogenerator Based on Piezoelectric and Triboelectric Mechanism for Mechanical Energy Harvesting. Nanomaterials, 2015, 5, 36-46.	1.9	49
65	Activation of multiple signaling pathways during the differentiation of mesenchymal stem cells cultured in a silicon nanowire microenvironment. Nanomedicine: Nanotechnology, Biology, and Medicine, 2014, 10, 1153-1163.	1.7	48
66	Reorganization of Cytoskeleton and Transient Activation of Ca2+ Channels in Mesenchymal Stem Cells Cultured on Silicon Nanowire Arrays. ACS Applied Materials & Interfaces, 2013, 5, 13295-13304.	4.0	47
67	Three-dimensional cell manipulation and patterning using dielectrophoresis via a multi-layer scaffold structure. Lab on A Chip, 2015, 15, 920-930.	3.1	47
68	Microstructure, Mechanical and Corrosion Behaviors of CoCrFeNiAl0.3 High Entropy Alloy (HEA) Films. Coatings, 2017, 7, 156.	1.2	47
69	Gradient-Enhanced Electromagnetic Actuation System With a New Core Shape Design for Microrobot Manipulation. IEEE Transactions on Industrial Electronics, 2020, 67, 4700-4710.	5.2	47
70	Multilevel-based topology design and shape control of robot swarms. Automatica, 2012, 48, 3122-3127.	3.0	46
71	Modeling and Impedance Control of a Two-Manipulator System Handling a Flexible Beam. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 1997, 119, 736-742.	0.9	45
72	Manipulating rigid payloads with multiple robots using compliant grippers. IEEE/ASME Transactions on Mechatronics, 2002, 7, 23-34.	3.7	45

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73	A Synchronization Approach for the Minimization of Contouring Errors of CNC Machine Tools. IEEE Transactions on Automation Science and Engineering, 2009, 6, 720-729.	3.4	45
74	Stabilizing a flexible beam handled by two manipulators via PD feedback. IEEE Transactions on Automatic Control, 2000, 45, 2159-2164.	3.6	44
75	Vision-Based 2-D Automatic Micrograsping Using Coarse-to-Fine Grasping Strategy. IEEE Transactions on Industrial Electronics, 2008, 55, 3324-3331.	5.2	44
76	Design of a robust unified controller for cell manipulation with a robot-aided optical tweezers system. Automatica, 2015, 55, 279-286.	3.0	44
77	Control of a rotating cantilever beam using a torque actuator and a distributed piezoelectric polymer actuator. Applied Acoustics, 2002, 63, 885-899.	1.7	43
78	Resource constrained multirobot task allocation based on leaderâ€“follower coalition methodology. International Journal of Robotics Research, 2011, 30, 1423-1434.	5.8	43
79	Coalition-Based Approach to Task Allocation of Multiple Robots With Resource Constraints. IEEE Transactions on Automation Science and Engineering, 2012, 9, 516-528.	3.4	43
80	Direct measurement of cell protrusion force utilizing a robot-aided cell manipulation system with optical tweezers for cell migration control. International Journal of Robotics Research, 2014, 33, 1782-1792.	5.8	43
81	<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.	7.3	43
82	Design for Robust Component Synthesis Vibration Suppression of Flexible Structures With Onâ€“Off Actuators. IEEE Transactions on Automation Science and Engineering, 2004, 20, 512-525.	2.4	42
83	Global Stability of a Saturated Nonlinear PID Controller for Robot Manipulators. IEEE Transactions on Control Systems Technology, 2009, 17, 892-899.	3.2	42
84	Cell manipulation tool with combined microwell array and optical tweezers for cell isolation and deposition. Journal of Micromechanics and Microengineering, 2013, 23, 075006.	1.5	41
85	A fluorescent microbead-based microfluidic immunoassay chip for immune cell cytokine secretion quantification. Lab on A Chip, 2018, 18, 522-531.	3.1	41
86	Adaptive Synchronization Control of Multiple Spacecraft Formation Flying. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2007, 129, 337-342.	0.9	40
87	Achieving Automated Organelle Biopsy on Small Single Cells Using a Cell Surgery Robotic System. IEEE Transactions on Biomedical Engineering, 2019, 66, 2210-2222.	2.5	40
88	Characterizing Mechanical Properties of Biological Cells by Microinjection. IEEE Transactions on Nanobioscience, 2010, 9, 171-180.	2.2	39
89	Trajectory Tracking Control for a 3-DOF Planar Parallel Manipulator Using the Convex Synchronized Control Method. IEEE Transactions on Control Systems Technology, 2008, 16, 613-623.	3.2	38
90	Rendezvous of unicycles: A bearings-only and perimeter shortening approach. Systems and Control Letters, 2013, 62, 401-407.	1.3	38

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91	Combined power management/design optimization for a fuel cell/battery plug-in hybrid electric vehicle using multi-objective particle swarm optimization. International Journal of Automotive Technology, 2014, 15, 645-654.	0.7	38
92	Robust Control to Manipulate a Microparticle with Electromagnetic Coil System. IEEE Transactions on Industrial Electronics, 2017, 64, 8566-8577.	5.2	38
93	Automated In Vivo Navigation of Magnetic-Driven Microrobots Using OCT Imaging Feedback. IEEE Transactions on Biomedical Engineering, 2020, 67, 2349-2358.	2.5	38
94	Rationally designed nickel oxide ravines@iron cobalt-hydroxides with largely enhanced capacitive performance for asymmetric supercapacitors. Journal of Materials Chemistry A, 2017, 5, 16944-16952.	5.2	37
95	Magnetically Driven Undulatory Microswimmers Integrating Multiple Rigid Segments. Small, 2019, 15, e1901197.	5.2	37
96	Transportation of Multiple Biological Cells Through Saturation-Controlled Optical Tweezers In Crowded Microenvironments. IEEE/ASME Transactions on Mechatronics, 2016, 21, 888-899.	3.7	36
97	Soft Gripper Design Based on the Integration of Flat Dry Adhesive, Soft Actuator, and Microspine. IEEE Transactions on Robotics, 2021, 37, 1065-1080.	7.3	36
98	Laser-induced fusion of human embryonic stem cells with optical tweezers. Applied Physics Letters, 2013, 103, 033701.	1.5	35
99	Development and application of ultrasonic surgical instruments. IEEE Transactions on Biomedical Engineering, 1997, 44, 462-467.	2.5	34
100	Generalized H/sub 2/ controller synthesis of fuzzy dynamic systems based on piecewise lyapunov functions. IEEE Transactions on Circuits and Systems Part 1: Regular Papers, 2002, 49, 1843-1850.	0.1	33
101	Biophysical characterization of hematopoietic cells from normal and leukemic sources with distinct primitiveness. Applied Physics Letters, 2011, 99, 083702.	1.5	33
102	Fiber Surface Modification Technology for Fiber-Optic Localized Surface Plasmon Resonance Biosensors. Sensors, 2012, 12, 2729-2741.	2.1	33
103	A Dynamic Model of Chemoattractant-Induced Cell Migration. Biophysical Journal, 2015, 108, 1645-1651.	0.2	33
104	Cell migration microfluidics for electrotaxis-based heterogeneity study of lung cancer cells. Biosensors and Bioelectronics, 2017, 89, 837-845.	5.3	33
105	Development of a MEMS based colloid thruster with sandwich structure. Sensors and Actuators A: Physical, 2005, 117, 168-172.	2.0	32
106	Influence of semiflexible structural features of actin cytoskeleton on cell stiffness based on actin microstructural modeling. Journal of Biomechanics, 2012, 45, 1900-1908.	0.9	32
107	Applying Combined Optical Tweezers and Fluorescence Microscopy Technologies to Manipulate Cell Adhesions for Cell-to-Cell Interaction Study. IEEE Transactions on Biomedical Engineering, 2013, 60, 2308-2315.	2.5	32
108	Multilevel-Based Topology Design and Cell Patterning With Robotically Controlled Optical Tweezers. IEEE Transactions on Control Systems Technology, 2015, 23, 176-185.	3.2	32

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109	Design of an Interactive Control System for a Multisection Continuum Robot. IEEE/ASME Transactions on Mechatronics, 2018, 23, 2379-2389.	3.7	32
110	Magnetically Powered Biodegradable Microswimmers. Micromachines, 2020, 11, 404.	1.4	32
111	Application of a Service Climbing Robot with Motion Planning and Visual Sensing. Journal of Field Robotics, 2003, 20, 189-199.	0.7	31
112	A visual sensing application to a climbing cleaning robot on the glass surface. Mechatronics, 2004, 14, 1089-1104.	2.0	31
113	Adaptive Synchronized Control for a Planar Parallel Manipulator: Theory and Experiments. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2006, 128, 976-979.	0.9	31
114	Optimal motion planning of a mobile robot with minimum energy consumption. , 2011, , .		30
115	Motion Planning and Robust Control for the Endovascular Navigation of a Microrobot. IEEE Transactions on Industrial Informatics, 2020, 16, 4557-4566.	7.2	30
116	Effects of direct current electric fields on lung cancer cell electrotaxis in a PMMA-based microfluidic device. Analytical and Bioanalytical Chemistry, 2017, 409, 2163-2178.	1.9	29
117	Revealing elasticity of largely deformed cells flowing along confining microchannels. RSC Advances, 2018, 8, 1030-1038.	1.7	29
118	Saturated PID Control for the Optical Manipulation of Biological Cells. IEEE Transactions on Control Systems Technology, 2018, 26, 1909-1916.	3.2	29
119	Automated Pairing Manipulation of Biological Cells With a Robot-Tweezers Manipulation System. IEEE/ASME Transactions on Mechatronics, 2015, 20, 2242-2251.	3.7	28
120	Fusion with stem cell makes the hepatocellular carcinoma cells similar to liver tumor-initiating cells. BMC Cancer, 2016, 16, 56.	1.1	28
121	Mechanically stable ternary heterogeneous electrodes for energy storage and conversion. Nanoscale, 2018, 10, 2613-2622.	2.8	28
122	Global localization of multirobot formations using ceiling vision SLAM strategy. Mechatronics, 2009, 19, 617-628.	2.0	27
123	Advanced tools and methods for single-cell surgery. Microsystems and Nanoengineering, 2022, 8, 47.	3.4	27
124	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.	3.7	26
125	Orientation Control of a Differential Mobile Robot Through Wheel Synchronization. IEEE/ASME Transactions on Mechatronics, 2005, 10, 345-351.	3.7	25
126	Visual-based Impedance Force Control of Three-dimensional Cell Injection System. Proceedings - IEEE International Conference on Robotics and Automation, 2007, , .	0.0	25

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127	Integrated design of trajectory planning and control for micro air vehicles. Mechatronics, 2007, 17, 245-253.	2.0	25
128	Mechanical Modeling of Red Blood Cells During Optical Stretching. Journal of Biomechanical Engineering, 2010, 132, 044504.	0.6	25
129	Design and characterization of a conductive nanostructured polypyrroleâ€polycaprolactone coated magnesium/<scp>PLGA</scp> composite for tissue engineering scaffolds. Journal of Biomedical Materials Research - Part A, 2015, 103, 2966-2973.	2.1	25
130	Self-assembly of hierarchical 3D starfish-like Co3O4 nanowire bundles on nickel foam for high-performance supercapacitor. Journal of Nanoparticle Research, 2016, 18, 1.	0.8	25
131	Characterization of biomechanical properties of cells through dielectrophoresis-based cell stretching and actin cytoskeleton modeling. BioMedical Engineering OnLine, 2017, 16, 41.	1.3	25
132	Lgr5â€overexpressing mesenchymal stem cells augment fracture healing through regulation of Wnt/ERK signaling pathways and mitochondrial dynamics. FASEB Journal, 2019, 33, 8565-8577.	0.2	25
133	Nonlinear PD Synchronized Control for Parallel Manipulators. , 0, , .		24
134	Preserving Multirobot Connectivity in Rendezvous Tasks in the Presence of Obstacles With Bounded Control Input. IEEE Transactions on Control Systems Technology, 2013, 21, 2306-2314.	3.2	24
135	Dynamic Path Planning for Inserting a Steerable Needle Into a Soft Tissue. IEEE/ASME Transactions on Mechatronics, 2014, 19, 549-558.	3.7	24
136	Rapid characterization of the biomechanical properties of drug-treated cells in a microfluidic device. Journal of Micromechanics and Microengineering, 2015, 25, 105004.	1.5	24
137	Hybrid control of a rotational flexible beam using enhanced PD feedback with a nonlinear differentiator and PZT actuators. Smart Materials and Structures, 2005, 14, 69-78.	1.8	23
138	Development of an FPGA-Based Motion Control ASIC for Robotic Manipulators. , 2006, , .		23
139	Position and force tracking of a two-manipulator system manipulating a flexible beam. Journal of Field Robotics, 2001, 18, 197-212.	0.7	22
140	A simple hybrid fuzzy PD controller. Mechatronics, 2004, 14, 877-890.	2.0	22
141	Automated High-Productivity Microinjection System for Adherent Cells. IEEE Robotics and Automation Letters, 2020, 5, 1167-1174.	3.3	22
142	Acoustic valves in microfluidic channels for droplet manipulation. Lab on A Chip, 2021, 21, 3165-3173.	3.1	22
143	Manipulating Cell Adhesions with Optical Tweezers for Study of Cell-to-Cell Interactions. Journal of Biomedical Nanotechnology, 2013, 9, 281-285.	0.5	21
144	A dual caudal-fin miniature robotic fish with an integrated oscillation and jet propulsive mechanism. Bioinspiration and Biomimetics, 2018, 13, 036007.	1.5	21

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145	Robust orientation control of multiâ€DOF cell based on uncertainty and disturbance estimation. International Journal of Robust and Nonlinear Control, 2019, 29, 4859-4871.	2.1	20
146	An Inverse-Kinematics Table-Based Solution of a Humanoid Robot Finger With Nonlinearly Coupled Joints. IEEE/ASME Transactions on Mechatronics, 2009, 14, 273-281.	3.7	19
147	Integrated Design and Control under Uncertainty: A Fuzzy Modeling Approach. Industrial & Engineering Chemistry Research, 2010, 49, 1312-1324.	1.8	19
148	Electrotaxis of tumor-initiating cells of H1975 lung adenocarcinoma cells is associated with both activation of stretch-activated cation channels (SACCs) and internal calcium release. Bioelectrochemistry, 2018, 124, 80-92.	2.4	19
149	Translational and rotational manipulation of filamentous cells using optically driven microrobots. Optics Express, 2019, 27, 16475.	1.7	19
150	Performance Improvement of Industrial Robot Trajectory Tracking Using Adaptive-Learning Scheme. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 1999, 121, 285-292.	0.9	18
151	Automated Transportation of Single Cells Using Robot-Tweezer Manipulation System. Journal of the Association for Laboratory Automation, 2011, 16, 263-270.	2.8	18
152	Probing cell biophysical behavior based on actin cytoskeleton modeling and stretching manipulation with optical tweezers. Applied Physics Letters, 2013, 103, .	1.5	18
153	Characterization of a Honeycomb-Like Scaffold With Dielectrophoresis-Based Patterning for Tissue Engineering. IEEE Transactions on Biomedical Engineering, 2017, 64, 755-764.	2.5	18
154	Engineered bone scaffolds with Dielectrophoresis-based patterning using 3D printing. Biomedical Microdevices, 2017, 19, 102.	1.4	18
155	Adaptive synchronized control for coordination of two robot manipulators. , 0, , .		17
156	Controlling Swarms of Mobile Robots for Switching between Formations Using Synchronization Concept. Proceedings - IEEE International Conference on Robotics and Automation, 2007, , .	0.0	17
157	Integrated vision and force control in suspended cell injection system: Towards automatic batch biomanipulation. , 2008, , .		17
158	A new piezo-driven ultrasonic cell microinjection system. , 2010, , .		17
159	Apply RRT-based path planning to robotic manipulation of biological cells with optical tweezer. , 2011, , .		17
160	Transportation of biological cells with robot-tweezer manipulation system. , 2011, , .		17
161	Development of an Optical Gas Leak Sensor for Detecting Ethylene, Dimethyl Ether and Methane. Sensors, 2013, 13, 4157-4169.	2.1	17
162	Design of a Novel Compliant Safe Robot Joint With Multiple Working States. IEEE/ASME Transactions on Mechatronics, 2016, 21, 1193-1198.	3.7	17

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163	Microfluidic platform for probing cancer cells migration property under periodic mechanical confinement. Biomicrofluidics, 2018, 12, 024118.	1.2	17
164	3-D Image Reconstruction of Biological Organelles With a Robot-Aided Microscopy System for Intracellular Surgery. IEEE Robotics and Automation Letters, 2019, 4, 231-238.	3.3	17
165	A microengineered cell fusion approach with combined optical tweezers and microwell array technologies. RSC Advances, 2013, 3, 23589.	1.7	16
166	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.	3.7	16
167	Control of a Flexible Continuum Manipulator for Laser Beam Steering. IEEE Robotics and Automation Letters, 2021, 6, 1074-1081.	3.3	16
168	A Visual Impedance Force Control of A Robotic Cell Injection System. , 2006, , .		15
169	A force control based cell injection approach in a bio-robotics system. , 2009, , .		15
170	Global exponential stability and periodic solutions of high-order bidirectional associative memory (BAM) neural networks with time delays and impulses. Neurocomputing, 2015, 155, 261-276.	3.5	15
171	Simultaneous Localization and Mapping-Based In Vivo Navigation Control of Microparticles. IEEE Transactions on Industrial Informatics, 2020, 16, 2956-2964.	7.2	15
172	Force Sensing and Control in Robot-Assisted Suspended Cell Injection System. Intelligent Systems Reference Library, 2012, , 61-88.	1.0	15
173	A switching controller for high speed cell transportation by using a robot-aided optical tweezers system. Automatica, 2018, 89, 308-315.	3.0	14
174	Development of a Cellâ€Loading Microrobot with Simultaneously Improved Degradability and Mechanical Strength for Performing In Vivo Delivery Tasks. Advanced Intelligent Systems, 2021, 3, 2100052.	3.3	14
175	Modeling and experimental study for minimization of energy consumption of a mobile robot. , 2012, , .		13
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