

Qing Shi

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

92
papers

766
citations

17
h-index

23
g-index

135
ext. papers

1,182
ext. citations

5.1
avg, IF

4.28
L-index

#	Paper	IF	Citations
92	Development of a Small-Sized Quadruped Robotic Rat Capable of Multimodal Motions. <i>IEEE Transactions on Robotics</i> , 2022 , 1-10	6.5	2
91	Noncontact 3-D Orientation Control at Microscale: Hydrodynamic Out-of-Plane Rotation and In-Plane Rotation by Compacted Rotational Stage. <i>IEEE/ASME Transactions on Mechatronics</i> , 2022 , 1-10	5.5	0
90	Determination of N-acetyl-DL-leucine in the saliva of healthy volunteers and diabetic patients using ultra-performance liquid chromatography with fluorescence detection.. <i>Clinica Chimica Acta</i> , 2021 , 526, 66-66	6.2	0
89	Optogenetic stimulation of CA3 pyramidal neurons restores synaptic deficits to improve spatial short-term memory in APP/PS1 mice.. <i>Progress in Neurobiology</i> , 2021 , 209, 102209	10.9	1
88	Automated Fabrication of the High-Fidelity Cellular Micro-Scaffold Through Proportion-Corrective Control of the Photocuring Process. <i>IEEE Robotics and Automation Letters</i> , 2021 , 6, 849-854	4.2	1
87	Simultaneous determination of three endogenous chiral thiol compounds in serum from humans at normal and stress states using ultrahigh-performance liquid chromatography coupled to quadrupole-Orbitrap high resolution mass spectrometry. <i>Journal of Chromatography A</i> , 2021 , 1642, 462028	4.5	4
86	Simultaneous Determination of Chiral Thiol Compounds and Monitoring of Dynamic Changes in Human Urine after Drinking Chinese Korean Ethnic Rice Wine. <i>Journal of Agricultural and Food Chemistry</i> , 2021 , 69, 5416-5427	5.7	1
85	Crystal structure of 3,3',3'-((1E,1'E,1'E)-((nitrilotris(ethane-2,1-diyl))tris(azaneylylidene)) tris(methaneylylidene))tris(4-hydroxy-1-naphthaldehyde) monohydrate, C ₄₂ H ₃₆ N ₄ O ₆ ·H ₂ O. <i>Zeitschrift Fur Kristallographie - New Crystal Structures</i> , 2021 , 236, 773-775	0.2	
84	Special issue on cyborg and bionic systems III. <i>Advanced Robotics</i> , 2021 , 35, 399-399	1.7	
83	A 1-Hydroxy-2,4-Diformylnaphthalene-Based Fluorescent Probe and Its Detection of Sulfites/Bisulfite. <i>Molecules</i> , 2021 , 26,	4.8	1
82	Implementing Rat-Like Motion for a Small-Sized Biomimetic Robot Based on Extraction of Key Movement Joints. <i>IEEE Transactions on Robotics</i> , 2021 , 37, 747-762	6.5	6
81	Ionic shape-morphing microrobotic end-effectors for environmentally adaptive targeting, releasing, and sampling. <i>Nature Communications</i> , 2021 , 12, 411	17.4	21
80	Texture Classification of a Miniature Whisker Sensor with Varied Contact Pose. <i>Communications in Computer and Information Science</i> , 2021 , 517-526	0.3	
79	A tetrahedral DNA nanorobot with conformational change in response to molecular trigger. <i>Nanoscale</i> , 2021 , 13, 15552-15559	7.7	4
78	Holographic Display-Based Control for High-Accuracy Photolithography of Cellular Micro-Scaffold with Heterogeneous Architecture. <i>IEEE/ASME Transactions on Mechatronics</i> , 2021 , 1-1	5.5	1
77	Simultaneous determination of DL-cysteine, DL-homocysteine, and glutathione in saliva and urine by UHPLC-Q-Orbitrap HRMS: Application to studies of oxidative stress. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2021 , 196, 113939	3.5	4
76	Permeable hollow 3D tissue-like constructs engineered by on-chip hydrodynamic-driven assembly of multicellular hierarchical micromodules. <i>Acta Biomaterialia</i> , 2020 , 113, 328-338	10.8	6

75	The lateralization of left hippocampal CA3 during the retrieval of spatial working memory. <i>Nature Communications</i> , 2020 , 11, 2901	17.4	16
74	Template-based fabrication of spatially organized 3D bioactive constructs using magnetic low-concentration gelation methacrylate (GelMA) microfibers. <i>Soft Matter</i> , 2020 , 16, 3902-3913	3.6	3
73	Biped Walking of Magnetic Microrobot in Oscillating Field for Indirect Manipulation of Non-Magnetic Objects. <i>IEEE Nanotechnology Magazine</i> , 2020 , 19, 21-24	2.6	5
72	Design and optimization of a lightweight and compact waist mechanism for a robotic rat. <i>Mechanism and Machine Theory</i> , 2020 , 146, 103723	4	1
71	Bioinspired Phase-Shift Turning Action for a Biomimetic Robot. <i>IEEE/ASME Transactions on Mechatronics</i> , 2020 , 25, 84-94	5.5	1
70	Fabrication of vascular smooth muscle-like tissues based on self-organization of circumferentially aligned cells in microengineered hydrogels. <i>Lab on A Chip</i> , 2020 , 20, 3120-3131	7.2	9
69	Routes for advancing SnTe thermoelectrics. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 16790-16813	13	39
68	Three-Dimensional Autofocusing Visual Feedback for Automated Rare Cells Sorting in Fluorescence Microscopy. <i>Micromachines</i> , 2019 , 10,	3.3	3
67	Contact Annealing for Self-Soldering: In Situ Investigation into Interfaces between PVP-Coated Silver Nanoelectrodes and Carbon Nanotubes. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 36035-36043	8.5	1
66	Magnetic Micromachine Using Nickel Nanoparticles for Propelling and Releasing in Indirect Assembly of Cell-Laden Micromodules. <i>Micromachines</i> , 2019 , 10,	3.3	7
65	3D Construction of Shape-Controllable Tissues through Self-Bonding of Multicellular Microcapsules. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 22950-22961	9.5	8
64	Multicellular Co-Culture in Three-Dimensional Gelatin Methacryloyl Hydrogels for Liver Tissue Engineering. <i>Molecules</i> , 2019 , 24,	4.8	21
63	Engineered tissue micro-rings fabricated from aggregated fibroblasts and microfibres for a bottom-up tissue engineering approach. <i>Biofabrication</i> , 2019 , 11, 035029	10.5	7
62	Design and Characterization of a 16-DOFs Nanorobotic Manipulation System for Repetitive and Pre-Programmable Tasks. <i>IEEE Nanotechnology Magazine</i> , 2019 , 18, 1208-1212	2.6	1
61	Automated Sorting of Rare Cells Based on Autofocusing Visual Feedback in Fluorescence Microscopy 2019 ,		2
60	Development of an MEMS based biomimetic whisker sensor for tactile sensing 2019 ,		2
59	Multifunctional Noncontact Micromanipulation Using Whirling Flow Generated by Vibrating a Single Piezo Actuator. <i>Small</i> , 2019 , 15, e1804421	11	18
58	An overview of biomimetic robots with animal behaviors. <i>Neurocomputing</i> , 2019 , 332, 339-350	5.4	34

57	Development of a Highly Compact Microgripper Capable of Online Calibration for Multisized Microobject Manipulation. <i>IEEE Nanotechnology Magazine</i> , 2018 , 17, 657-661	2.6	15
56	. <i>IEEE/ASME Transactions on Mechatronics</i> , 2018 , 23, 667-678	5.5	15
55	Microrobotic Assembly of Shape-Customized Three-Dimensional Microtissues Based on Surface Tension Driven Self-Alignment. <i>IEEE Nanotechnology Magazine</i> , 2018 , 17, 684-687	2.6	3
54	Construction of Multilayer Porous Scaffold Based on Magnetically Guided Assembly of Microfiber. <i>Journal of Systems Science and Complexity</i> , 2018 , 31, 581-595	1	1
53	Vortex-Driven Rotation for Three-Dimensional Imaging Under Microscopy. <i>IEEE Nanotechnology Magazine</i> , 2018 , 17, 688-691	2.6	6
52	A Modified Robotic Rat to Study Rat-Like Pitch and Yaw Movements. <i>IEEE/ASME Transactions on Mechatronics</i> , 2018 , 23, 2448-2458	5.5	19
51	Microfluidic Spun Alginate Hydrogel Microfibers and Their Application in Tissue Engineering. <i>Gels</i> , 2018 , 4,	4.2	18
50	Hydrodynamic Tweezers: Trapping and Transportation in Microscale Using Vortex Induced by Oscillation of a Single Piezoelectric Actuator. <i>Sensors</i> , 2018 , 18,	3.8	8
49	Development of Highly Sensitive Analysis Method for Histamine and Metabolites in Pregnant Women's Fingernail by UPLC-ESI-MS. <i>Analytical Sciences</i> , 2018 , 34, 1023-1029	1.7	3
48	Fabrication of perfusable 3D hepatic lobule-like constructs through assembly of multiple cell type laden hydrogel microstructures. <i>Biofabrication</i> , 2018 , 11, 015016	10.5	22
47	Magnetic alginate microfibers as scaffolding elements for the fabrication of microvascular-like structures. <i>Acta Biomaterialia</i> , 2018 , 66, 272-281	10.8	38
46	A novel, simplified strategy of relative quantification N-glycan: Quantitative glycomics using electrospray ionization mass spectrometry through the stable isotopic labeling by transglycosylation reaction of mutant enzyme Endo-M-N175Q. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2018 , 149, 265-272	3.5	10
45	Determination of d,l-Amino Acids in Collagen from Pig and Cod Skins by UPLC Using Pre-column Fluorescent Derivatization. <i>Food Analytical Methods</i> , 2018 , 11, 3130-3137	3.4	5
44	. <i>IEEE/ASME Transactions on Mechatronics</i> , 2017 , 22, 845-854	5.5	20
43	How to achieve precise operation of a robotic manipulator on a macro to micro/nano scale. <i>Assembly Automation</i> , 2017 , 37, 186-199	2.1	6
42	Characterization of the Resistance and Force of a Carbon Nanotube/Metal Side Contact by Nanomanipulation. <i>Scanning</i> , 2017 , 2017, 5910734	1.6	18
41	Robotics-based micro-reeling of magnetic microfibers to fabricate helical structure for smooth muscle cells culture 2017 ,		4
40	3D assembly of carbon nanotubes for fabrication of field-effect transistors through nanomanipulation and electron-beam-induced deposition. <i>Journal of Micromechanics and Microengineering</i> , 2017 , 27, 105007	2	6

39	Assembly of RGD-Modified Hydrogel Micromodules into Permeable Three-Dimensional Hollow Microtissues Mimicking in Vivo Tissue Structures. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 41669-41679	9.5	34
38	Hardware and control design considerations for a monitoring system of autonomous mobile robots in extreme environment 2017 ,		2
37	Highly sensitive derivatization reagents possessing positively charged structures for the determination of oligosaccharides in glycoproteins by high-performance liquid chromatography electrospray ionization tandem mass spectrometry. <i>Journal of Chromatography A</i> , 2016 , 1465, 79-89	4.5	9
36	Mechanism design of an ankle robot MKA-III for rehabilitation training 2016 ,		2
35	Non-contact high-speed rotation of micro targets by vibration of single piezoelectric actuator 2016 ,		4
34	High-Speed Bioassembly of Cellular Microstructures With Force Characterization for Repeating Single-Step Contact Manipulation. <i>IEEE Robotics and Automation Letters</i> , 2016 , 1, 1097-1102	4.2	3
33	Micromanipulation for Coiling Microfluidic Spun Alginate Microfibers by Magnetically Guided System. <i>IEEE Robotics and Automation Letters</i> , 2016 , 1, 808-813	4.2	5
32	Microbubbles for High-Speed Assembly of Cell-Laden Vascular-Like Microtube. <i>IEEE Robotics and Automation Letters</i> , 2016 , 1, 754-759	4.2	1
31	Assembly of alginate microfibers to form a helical structure using micromanipulation with a magnetic field. <i>Journal of Micromechanics and Microengineering</i> , 2016 , 26, 105017	2	10
30	Automated pick-up of carbon nanotubes inside a scanning electron microscope 2016 ,		1
29	Development of lower limb motion detection based on LPMS 2016 ,		3
28	Development of lower limb rehabilitation evaluation system based on virtual reality technology 2016 ,		2
27	Development of an ankle robot MKA-III for rehabilitation training 2016 ,		1
26	Three-dimensional magnetic assembly of alginate microfibers using microfluidic printing method 2015 ,		1
25	Automated Assembly of Vascular-Like Microtube With Repetitive Single-Step Contact Manipulation. <i>IEEE Transactions on Biomedical Engineering</i> , 2015 , 62, 2620-8	5	37
24	Magnetic assembly of microfluidic spun alginate microfibers for fabricating three-dimensional cell-laden hydrogel constructs. <i>Microfluidics and Nanofluidics</i> , 2015 , 19, 1169-1180	2.8	26
23	Mechanism design and control strategies of an ankle robot for rehabilitation training 2015 ,		6
22	3D magnetic assembly of cellular structures with "printing" manipulation by microrobot-controlled microfluidic system 2015 ,		3

21	Behavior modulation of rats to a robotic rat in multi-rat interaction. <i>Bioinspiration and Biomimetics</i> , 2015 , 10, 056011	2.6	15
20	Design and Control of a Biomimetic Robotic Rat for Interaction With Laboratory Rats. <i>IEEE/ASME Transactions on Mechatronics</i> , 2015 , 20, 1832-1842	5.5	18
19	Contact characterization between multi-walled carbon nanotubes and metal electrodes 2015 ,		2
18	On-chip fabrication and magnetic force estimation of peapod-like hybrid microfibers using a microfluidic device. <i>Microfluidics and Nanofluidics</i> , 2015 , 18, 1177-1187	2.8	25
17	Development of Battery Charging System Using Wireless Power Transmission for Outdoor Mobile Robots. <i>The Abstracts of the International Conference on Advanced Mechatronics Toward Evolutionary Fusion of IT and Mechatronics ICAM</i> , 2015 , 2015.6, 110-111		
16	A Study on Effects of Outer Shape of Mobile Robot on Locomotive Performance in Grass Field. <i>The Abstracts of the International Conference on Advanced Mechatronics Toward Evolutionary Fusion of IT and Mechatronics ICAM</i> , 2015 , 2015.6, 161-162		
15	Micro-Assembly of a Vascular-Like Micro-Channel with Railed Micro-Robot Team-Coordinated Manipulation. <i>International Journal of Advanced Robotic Systems</i> , 2014 , 11, 115	1.4	7
14	Development of an omnidirectional vision system for environment perception 2014 ,		2
13	Design of operating software and electrical system of mobile robot for environmental monitoring 2014 ,		8
12	Development of a human-like motor nerve model to simulate the diseases effects on muscle tension for neurologic examination training 2014 ,		1
11	Modulation of rat behaviour by using a rat-like robot. <i>Bioinspiration and Biomimetics</i> , 2013 , 8, 046002	2.6	27
10	A novel method to develop an animal model of depression using a small mobile robot. <i>Advanced Robotics</i> , 2013 , 27, 61-69	1.7	6
9	A rat-like robot for interacting with real rats. <i>Robotica</i> , 2013 , 31, 1337-1350	2.1	2
8	Image processing and behavior planning for robot-rat interaction 2012 ,		7
7	Development of a Hybrid Wheel-Legged Mobile Robot WR-3 Designed for the Behavior Analysis of Rats. <i>Advanced Robotics</i> , 2011 , 25, 2255-2272	1.7	10
6	A robot-rat interaction experimental system based on the rat-inspired mobile robot WR-4 2011 ,		1
5	Development of experimental setup to create novel mental disorder model rats using small mobile robot 2010 ,		2
4	Development of a novel quadruped mobile robot for behavior analysis of rats 2010 ,		1

- 3 Development of a cognition system for analyzing rat's behaviors **2010**, 8
- 2 Development of the hybrid wheel-legged mobile robot WR-3 designed to interact with rats **2010**, 5
- 1 Distributed Control System for a Humanoid Robot **2007**, 10