Huaping Wang

List of Publications by Year
in descending order

78 papers	939 citations	516215 16 h-index	500791 28 g-index
79 all docs	79 docs citations	79 times ranked	1071 citing authors

#	Article	IF	Citations
1	Ionic shape-morphing microrobotic end-effectors for environmentally adaptive targeting, releasing, and sampling. Nature Communications, 2021, 12, 411.	5.8	87
2	Large-Scale Spinning Approach to Engineering Knittable Hydrogel Fiber for Soft Robots. ACS Nano, 2020, 14, 14929-14938.	7.3	64
3	Preparation and properties of photochromic bacterial cellulose nanofibrous membranes. Cellulose, 2011, 18, 655-661.	2.4	60
4	Automated Assembly of Vascular-Like Microtube With Repetitive Single-Step Contact Manipulation. IEEE Transactions on Biomedical Engineering, 2015, 62, 2620-2628.	2.5	58
5	Assembly of RGD-Modified Hydrogel Micromodules into Permeable Three-Dimensional Hollow Microtissues Mimicking in Vivo Tissue Structures. ACS Applied Materials & Interfaces, 2017, 9, 41669-41679.	4.0	50
6	Synthesis and characteristics of thermoplastic elastomer based on polyamideâ€6. Polymer International, 2011, 60, 1728-1736.	1.6	45
7	Magnetic alginate microfibers as scaffolding elements for the fabrication of microvascular-like structures. Acta Biomaterialia, 2018, 66, 272-281.	4.1	45
8	A Vision-Based Automated Manipulation System for the Pick-Up of Carbon Nanotubes. IEEE/ASME Transactions on Mechatronics, 2017, 22, 845-854.	3.7	35
9	Fabrication of perfusable 3D hepatic lobule-like constructs through assembly of multiple cell type laden hydrogel microstructures. Biofabrication, 2019, 11, 015016.	3.7	35
10	Multicellular Co-Culture in Three-Dimensional Gelatin Methacryloyl Hydrogels for Liver Tissue Engineering. Molecules, 2019, 24, 1762.	1.7	34
11	Magnetic assembly of microfluidic spun alginate microfibers for fabricating three-dimensional cell-laden hydrogel constructs. Microfluidics and Nanofluidics, 2015, 19, 1169-1180.	1.0	31
12	Microfluidic Spun Alginate Hydrogel Microfibers and Their Application in Tissue Engineering. Gels, 2018, 4, 38.	2.1	28
13	Characterization of the Resistance and Force of a Carbon Nanotube/Metal Side Contact by Nanomanipulation. Scanning, 2017, 2017, 1-11.	0.7	26
14	Development of a Highly Compact Microgripper Capable of Online Calibration for Multisized Microobject Manipulation. IEEE Nanotechnology Magazine, 2018, 17, 657-661.	1.1	22
15	The Mechanism of Yaw Torque Compensation in the Human and Motion Design for Humanoid Robots. International Journal of Advanced Robotic Systems, 2013, 10, 57.	1.3	19
16	Automated Fluidic Assembly of Microvessel-Like Structures Using a Multimicromanipulator System. IEEE/ASME Transactions on Mechatronics, 2018, 23, 667-678.	3.7	19
17	3D Construction of Shape-Controllable Tissues through Self-Bonding of Multicellular Microcapsules. ACS Applied Materials & Interfaces, 2019, 11, 22950-22961.	4.0	18
18	Micro-Assembly of a Vascular-Like Micro-Channel with Railed Micro-Robot Team-Coordinated Manipulation. International Journal of Advanced Robotic Systems, 2014, 11, 115.	1.3	16

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19	Fabrication of vascular smooth muscle-like tissues based on self-organization of circumferentially aligned cells in microengineered hydrogels. Lab on A Chip, 2020, 20, 3120-3131.	3.1	16
20	Astridia velutina-like S, N-codoped hierarchical porous carbon from silk cocoon for superior oxygen reduction reaction. RSC Advances, 2016, 6, 73560-73565.	1.7	15
21	Pulsed Microfluid Force-Based On-Chip Modular Fabrication for Liver Lobule-Like 3D Cellular Models. Cyborg and Bionic Systems, 2021, 2021, .	3.7	13
22	Bio-inspired engineering of a perfusion culture platform for guided three-dimensional nerve cell growth and differentiation. Lab on A Chip, 2022, 22, 1006-1017.	3.1	13
23	Electrically Controlled Aquatic Soft Actuators with Desynchronized Actuation and Light-Mediated Reciprocal Locomotion. ACS Applied Materials & Interfaces, 2022, 14, 12936-12948.	4.0	13
24	Biped Walking of Magnetic Microrobot in Oscillating Field for Indirect Manipulation of Non-Magnetic Objects. IEEE Nanotechnology Magazine, 2020, 19, 21-24.	1.1	12
25	Permeable hollow 3D tissue-like constructs engineered by on-chip hydrodynamic-driven assembly of multicellular hierarchical micromodules. Acta Biomaterialia, 2020, 113, 328-338.	4.1	12
26	Magnetic Micromachine Using Nickel Nanoparticles for Propelling and Releasing in Indirect Assembly of Cell-Laden Micromodules. Micromachines, 2019, 10, 370.	1.4	11
27	Tuning the Charge Transport Property of Naphthalene Diimide Derivatives by Changing the Substituted Position of Fluorine Atom on Molecular Backbone. Chinese Journal of Chemistry, 2014, 32, 1057-1064.	2.6	9
28	Engineered tissue micro-rings fabricated from aggregated fibroblasts and microfibres for a bottom-up tissue engineering approach. Biofabrication, 2019, 11, 035029.	3.7	9
29	Micromanipulation for Coiling Microfluidic Spun Alginate Microfibers by Magnetically Guided System. IEEE Robotics and Automation Letters, 2016, 1, 808-813.	3.3	8
30	How to achieve precise operation of a robotic manipulator on a macro to micro/nano scale. Assembly Automation, 2017, 37, 186-199.	1.0	8
31	3D assembly of carbon nanotubes for fabrication of field-effect transistors through nanomanipulation and electron-beam-induced deposition. Journal of Micromechanics and Microengineering, 2017, 27, 105007.	1.5	7
32	Properties and phase morphology of cellulose/aromatic polysulfonamide alloy fibers regulated by the viscosity ratio of solution. Cellulose, 2018, 25, 903-914.	2.4	7
33	Microrobotic Assembly of Shape-Customized Three-Dimensional Microtissues Based on Surface Tension Driven Self-Alignment. IEEE Nanotechnology Magazine, 2018, 17, 684-687.	1.1	7
34	Highly flameâ€retardant and low toxic polybutylene succinate composites with functionalized <scp>BN</scp>@<scp>APP</scp> exfoliated by ball milling. Journal of Applied Polymer Science, 2022, 139, .	1.3	7
35	Humanoid walking pattern generation based on the ground reaction force features of human walking. , 2012, , .		6
36	Non-contact high-speed rotation of micro targets by vibration of single piezoelectric actuator. , 2016, , .		4

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37	Robotics-based micro-reeling of magnetic microfibers to fabricate helical structure for smooth muscle cells culture. , 2017, , .		4
38	Magnetically-guided assembly of microfluidic fibers for ordered construction of diverse netlike modules. Journal of Micromechanics and Microengineering, 2017, 27, 125014.	1.5	4
39	Automated Sorting of Rare Cells Based on Autofocusing Visual Feedback in Fluorescence Microscopy. , 2019, , .		4
40	Template-based fabrication of spatially organized 3D bioactive constructs using magnetic low-concentration gelation methacrylate (GelMA) microfibers. Soft Matter, 2020, 16, 3902-3913.	1.2	4
41	System design of an Anthropomorphic arm robot for dynamic interaction task. , 2011, , .		3
42	3D assembly of cellular structures with coordinated manipulation by rail-guided multi-microrobotic system. , 2014, , .		3
43	3D magnetic assembly of cellular structures with "printing" manipulation by microrobot-controlled microfluidic system. , 2015, , .		3
44	High-Speed Bioassembly of Cellular Microstructures With Force Characterization for Repeating Single-Step Contact Manipulation. IEEE Robotics and Automation Letters, 2016, 1, 1097-1102.	3.3	3
45	Design and Characterization of a 16-DOFs Nanorobotic Manipulation System for Repetitive and Pre-Programmable Tasks. IEEE Nanotechnology Magazine, 2019, 18, 1208-1212.	1.1	3
46	Three-Dimensional Autofocusing Visual Feedback for Automated Rare Cells Sorting in Fluorescence Microscopy. Micromachines, 2019, 10, 567.	1.4	3
47	Holographic Display-Based Control for High-Accuracy Photolithography of Cellular Micro-Scaffold With Heterogeneous Architecture. IEEE/ASME Transactions on Mechatronics, 2022, 27, 1117-1127.	3.7	3
48	Accurate modulation of photoprinting under stiffness imaging feedback for engineering ECMs with high-fidelity mechanical properties. Microsystems and Nanoengineering, 2022, 8, .	3.4	3
49	A clamp-free micro-stretching system for evaluating the viscoelastic response of cell-laden microfibers. Biosensors and Bioelectronics, 2022, 214, 114517.	5.3	3
50	Automated bubble-based assembly of cell-laden microgels into vascular-like microtubes. , 2015, , .		2
51	Three-dimensional magnetic assembly of alginate microfibers using microfluidic “printing” method. , 2015, , .		2
52	Non-contact transportation and rotation of micro objects by vibrating glass needle circularly under water. , 2017, , .		2
53	Contact Annealing for Self-Soldering: In Situ Investigation into Interfaces between PVP-Coated Silver Nanoelectrodes and Carbon Nanotubes. ACS Applied Materials & Interfaces, 2019, 11, 36035-36043.	4.0	2
54	Preparing cationic dyeable polyamide 6 filaments by combining the masterbatch technique with melt copolymerization. Textile Reseach Journal, 2022, 92, 511-524.	1.1	2

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55	Magnetic manipulation for spatially patternel alginate hydrogel microfibers. , 2013, , .		1
56	Fabrication of multilayered tube-shaped microstructures embedding cells inside microfluidic devices. , 2013, , .		1
57	Assembly of 3D cell-laden constructs based on rail-guided dextrous stick coordination manipulation. , 2013, , .		1
58	Fabrication and assembly of multi-layered microstructures embedding cells inside microfluidic devices. , 2013, , .		1
59	Automated pick-up of carbon nanotubes inside a scanning electron microscope. , 2016, , .		1
60	Microbubbles for High-Speed Assembly of Cell-Laden Vascular-Like Microtube. IEEE Robotics and Automation Letters, 2016, 1, 754-759.	3.3	1
61	Nanomanipulation of a single carbon nanotube for the fabrication of a field-effect transistor. , 2017, , .		1
62	Construction of Multilayer Porous Scaffold Based on Magnetically Guided Assembly of Microfiber. Journal of Systems Science and Complexity, 2018, 31, 581-595.	1.6	1
63	Construction of 3D Micro-Tissue Based on Electrodeposition and Robotic Manipulation. , 2018, , .		1
64	Automated Fabrication of the High-Fidelity Cellular Micro-Scaffold Through Proportion-Corrective Control of the Photocuring Process. IEEE Robotics and Automation Letters, 2021, 6, 849-854.	3.3	1
65	Micro Robotic Manipulation System for the Force Stimulation of Muscle Fiber-like Cell Structure. , 2021, , .		1
66	Controllable Melting and Flow of Ag in Self-Formed Amorphous Carbonaceous Shell for Nanointerconnection. Micromachines, 2022, 13, 213.	1.4	1
67	Bubble-based assembly of micro-tube with coordinated multiple manipulators. , 2014, , .		0
68	Dexterous nanomanipulation of 2D hydrogel microstructure for 3D assembly by multi-robot cooperation. , 2014, , .		0
69	Automated biomanipulation to assemble cellular microstructure with railed multi-microrobotic system. , 2015, , .		0
70	Magnetically-guided manipulation of microfiber for fabrication of porous cell scaffold. , 2016, , .		0
71	Microrobotic assembly of shape-controllable microstructures to perfusable 3D cell-laden microtissues. , 2017, , .		0
72	3-D Visual Feedback for Automated Sorting of Cells with ultra-low Proportion under Dark Field. , 2018, , .		0

#	Article	IF	Citations
73	Assembly of Cellular Microstructures into Lobule-Like 3D Microtissues Based on Microrobotic Manipulation* Research supported by the Beijing Natural Science Foundation under Grant 4164099and the National Natural Science Foundation of China under grants 61603044and 61520106011.. , 2018, , .		0
74	Design and Online Calibration of a Highly Compact Microgripper. , 2018, , .		0
75	Nanorobot assisted self-soldering investigation between PVP-coated silver electrodes and carbon nanotubes. , 2019, , .		0
76	Untethered Micromachines Using Magnetic Nanoparticles for Wireless Assembly of Cell-laden Heterogeneous Micromodules*. , 2019, , .		0
77	Optimization of the Fluidic-Based Assembly for Three-Dimensional Construction of Multicellular Hydrogel Micro-Architecture in Mimicking Hepatic Lobule-like Tissues. Micromachines, 2021, 12, 1129.	1.4	0
78	Magnetically Actuated Pick-and-place Operations of Cellular Micro-rings for High-speed Assembly of Micro-scale Biological Tube. , 2020, , .		0