

# Ya-jing Shen

## List of Publications by Year in Descending Order

**Source:** <https://exaly.com/author-pdf/382633/ya-jing-shen-publications-by-year.pdf>

**Version:** 2024-04-09

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

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

110 papers	1,414 citations	22 h-index	33 g-index
160 ext. papers	1,931 ext. citations	5.4 avg, IF	5.25 L-index

#	Paper	IF	Citations
110	Tactile Super-Resolution Model for Soft Magnetic Skin. <i>IEEE Robotics and Automation Letters</i> , <b>2022</b> , 7, 2589-2596	4.2	2
109	Magnetic-Directed Manipulation and Assembly of Fragile Bioartificial Architectures in the Liquid-Liquid Interface. <i>IEEE/ASME Transactions on Mechatronics</i> , <b>2022</b> , 1-11	5.5	1
108	Functionalized Spiral-Rolling Millirobot for Upstream Swimming in Blood Vessel.. <i>Advanced Science</i> , <b>2022</b> , e2200342	13.6	1
107	Nanofiber-based biodegradable millirobot with controllable anchoring and adaptive stepwise release functions. <i>Matter</i> , <b>2022</b> , 5, 1277-1295	12.7	3
106	Corrections to Starfish Inspired Milli Soft Robot With Omnidirectional Adaptive Locomotion Ability[Apr 21 3325-3332]. <i>IEEE Robotics and Automation Letters</i> , <b>2021</b> , 6, 5348-5348	4.2	
105	Plasmonic-Enhanced Graphene Oxide-Based Aquatic Robot for Target Cargo Delivery. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 1503-1510	9.5	4
104	Starfish Inspired Milli Soft Robot With Omnidirectional Adaptive Locomotion Ability. <i>IEEE Robotics and Automation Letters</i> , <b>2021</b> , 6, 3325-3332	4.2	7
103	Light-Driven Carbon-Based Soft Materials: Principle, Robotization, and Application. <i>Advanced Optical Materials</i> , <b>2021</b> , 9, 2100035	8.1	6
102	Self-adaptive and efficient propulsion of Ray sperms at different viscosities enabled by heterogeneous dual helices. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2021</b> , 118,	11.5	2
101	Transparent Magnetic Soft Millirobot Actuated by Micro-Node Array. <i>Advanced Materials Technologies</i> , <b>2021</b> , 6, 2100131	6.8	2
100	Multi-functionalized micro-helical capsule robots with superior loading and releasing capabilities. <i>Journal of Materials Chemistry B</i> , <b>2021</b> , 9, 1441-1451	7.3	6
99	Soft magnetic skin for super-resolution tactile sensing with force self-decoupling. <i>Science Robotics</i> , <b>2021</b> , 6,	18.6	59
98	Robot-aided FEM torque sensing within an ultrawide dynamic range. <i>Microsystems and Nanoengineering</i> , <b>2021</b> , 7, 2	7.7	3
97	A smartphone-based calibration-free portable urinalysis device. <i>Journal of Central South University</i> , <b>2021</b> , 28, 3829-3837	2.1	0
96	Micro-rocket robot with all-optic actuating and tracking in blood. <i>Light: Science and Applications</i> , <b>2020</b> , 9, 84	16.7	45
95	In-plane Dual-axis MEMS Resonant Accelerometer with A Uniform Sensitivity <b>2020</b> ,		1
94	Battery-Less Soft Millirobot That Can Move, Sense, and Communicate Remotely by Coupling the Magnetic and Piezoelectric Effects. <i>Advanced Science</i> , <b>2020</b> , 7, 2000069	13.6	40

93	Plasmonic-Assisted Graphene Oxide Films with Enhanced Photothermal Actuation for Soft Robots. <i>Advanced Functional Materials</i> , <b>2020</b> , 30, 1910172	15.6	34
92	An agglutinate magnetic spray transforms inanimate objects into millirobots for biomedical applications. <i>Science Robotics</i> , <b>2020</b> , 5,	18.6	44
91	Temperature compensation for MEMS resonant accelerometer based on genetic algorithm optimized backpropagation neural network. <i>Sensors and Actuators A: Physical</i> , <b>2020</b> , 316, 112393	3.9	11
90	Nanorobotic Manipulation System for 360 <sup>°</sup> Characterization Atomic Force Microscopy. <i>IEEE Transactions on Industrial Electronics</i> , <b>2020</b> , 67, 2916-2924	8.9	16
89	Flexible 3-D Helix Fabrication by In-Situ SEM Micromanipulation System. <i>IEEE Transactions on Industrial Electronics</i> , <b>2020</b> , 67, 5565-5574	8.9	2
88	Millimeter-Scale Soft Continuum Robots for Large-Angle and High-Precision Manipulation by Hybrid Actuation. <i>Advanced Intelligent Systems</i> , <b>2020</b> , 3, 2000189	6	7
87	Automatic Microwaveguide Coupling Based on Hybrid Position and Light Intensity Feedback. <i>IEEE/ASME Transactions on Mechatronics</i> , <b>2019</b> , 24, 1166-1175	5.5	2
86	Low-Invasive Cell Injection based on Rotational Microrobot. <i>Advanced Biology</i> , <b>2019</b> , 3, e1800274	3.5	3
85	In Situ Micromechanical Characterization of Metallic Glass Microwires under Torsional Loading. <i>Experimental Mechanics</i> , <b>2019</b> , 59, 361-368	2.6	6
84	Automatic 3D reconstruction of SEM images based on Nano-robotic manipulation and epipolar plane images. <i>Ultramicroscopy</i> , <b>2019</b> , 200, 149-159	3.1	4
83	Inchworm-Inspired Soft Robot With Light-Actuated Locomotion. <i>IEEE Robotics and Automation Letters</i> , <b>2019</b> , 4, 1647-1652	4.2	9
82	Precise Watch-Hand Alignment Under Disturbance Condition by Microrobotic System. <i>IEEE Transactions on Automation Science and Engineering</i> , <b>2019</b> , 16, 278-285	4.9	1
81	Magnetically Actuated Heterogeneous Microcapsule-Robot for the Construction of 3D Bioartificial Architectures. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 25664-25673	9.5	15
80	A MEMS accelerometer based on synchronizing DETF oscillators <b>2019</b> ,		5
79	Tubular Microcapsules with Polysaccharide Membranes Based on a Co-axial Microfluidic Chip. <i>ACS Biomaterials Science and Engineering</i> , <b>2019</b> , 5, 6281-6289	5.5	6
78	Investigation of the Nonaxisymmetric Bending Property of Pollen Tubes via a Rotary Nanorobotic System. <i>IEEE Nanotechnology Magazine</i> , <b>2019</b> , 18, 139-143	2.6	1
77	Self-Assembly Magnetic Chain Unit for Bulk Biomaterial Actuation. <i>IEEE Robotics and Automation Letters</i> , <b>2019</b> , 4, 262-268	4.2	8
76	Programmable higher-order biofabrication of self-locking microencapsulation. <i>Biofabrication</i> , <b>2019</b> , 11, 035019	10.5	8

75	Achieving Automated Organelle Biopsy on Small Single Cells Using a Cell Surgery Robotic System. <i>IEEE Transactions on Biomedical Engineering</i> , <b>2019</b> , 66, 2210-2222	5	25
74	Scale effect investigation of copper microwire's mechanical properties after in situ scanning electron microscope twisting. <i>Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science</i> , <b>2019</b> , 233, 3670-3677	1.3	0
73	Graphene-Based Light-Driven Soft Robot with Snake-Inspired Concertina and Serpentine Locomotion. <i>Advanced Materials Technologies</i> , <b>2019</b> , 4, 1800366	6.8	22
72	360° multiparametric imaging atomic force microscopy: A method for three-dimensional nanomechanical mapping. <i>Ultramicroscopy</i> , <b>2019</b> , 196, 83-87	3.1	4
71	Out-of-Plane Rotation Control of Biological Cells With a Robot-Tweezers Manipulation System for Orientation-Based Cell Surgery. <i>IEEE Transactions on Biomedical Engineering</i> , <b>2019</b> , 66, 199-207	5	46
70	Ultrahigh-Precision Rotational Positioning Under a Microscope: Nanorobotic System, Modeling, Control, and Applications. <i>IEEE Transactions on Robotics</i> , <b>2018</b> , 34, 497-507	6.5	41
69	Specimen's plane misaligned installation solution based on charge fluctuation inside SEM. <i>Applied Physics Letters</i> , <b>2018</b> , 112, 144102	3.4	6
68	Nanorobotic System for Precise In Situ Three-Dimensional Manufacture of Helical Microstructures. <i>IEEE Robotics and Automation Letters</i> , <b>2018</b> , 1-1	4.2	2
67	Development of a New Robotic Ankle Rehabilitation Platform for Hemiplegic Patients after Stroke. <i>Journal of Healthcare Engineering</i> , <b>2018</b> , 2018, 3867243	3.7	7
66	Hydrothermal synthesis of gold nanoplates and their structure-dependent LSPR properties. <i>Journal of Materials Research</i> , <b>2018</b> , 33, 2671-2679	2.5	12
65	3D SYSTEM CELL ENGINEERING USING MICRONANOROBOTICS <b>2018</b> , 255-273		
64	Design of 6-DOF Parallel Ankle Rehabilitation Robot <b>2018</b> ,		1
63	Nano-assembly and welding of gold nanorods based on DNA origami and plasmon-induced laser irradiation. <i>International Journal of Intelligent Robotics and Applications</i> , <b>2018</b> , 2, 445-453	1.7	4
62	A MEMS resonant accelerometer for low-frequency vibration detection. <i>Sensors and Actuators A: Physical</i> , <b>2018</b> , 283, 151-158	3.9	37
61	A bioinspired multilegged soft millirobot that functions in both dry and wet conditions. <i>Nature Communications</i> , <b>2018</b> , 9, 3944	17.4	233
60	A fast and powerful swimming microrobot with a serrated tail enhanced propulsion interface. <i>Nanoscale</i> , <b>2018</b> , 10, 19673-19677	7.7	16
59	Less-invasive non-embedded cell cutting by nanomanipulation and vibrating nanoknife. <i>Applied Physics Letters</i> , <b>2017</b> , 110, 043701	3.4	12
58	Hybrid 3D printing and electrodeposition approach for controllable 3D alginate hydrogel formation. <i>Biofabrication</i> , <b>2017</b> , 9, 025032	10.5	33

57	In situ reduction of silver nanoparticles on hybrid polydopamine-copper phosphate nanoflowers with enhanced antimicrobial activity. <i>Journal of Materials Chemistry B</i> , <b>2017</b> , 5, 5311-5317	7.3	22
56	Automatic Sample Alignment Under Microscopy for 360° Imaging Based on the Nanorobotic Manipulation System. <i>IEEE Transactions on Robotics</i> , <b>2017</b> , 33, 220-226	6.5	22
55	In Situ SEM Torsion Test of Metallic Glass Microwires Based on Micro Robotic Manipulation. <i>Scanning</i> , <b>2017</b> , 2017, 6215691	1.6	5
54	Robot-aided electrospinning toward intelligent biomedical engineering. <i>Robotics and Biomimetics</i> , <b>2017</b> , 4, 17		5
53	State of the Art: Bipedal Robots for Lower Limb Rehabilitation. <i>Applied Sciences (Switzerland)</i> , <b>2017</b> , 7, 1182	2.6	16
52	Nanorobotic System iTRo for Controllable 1D Micro/nano Material Twisting Test. <i>Scientific Reports</i> , <b>2017</b> , 7, 3077	4.9	11
51	Multi-directional Characterization for Pollen Tubes Based on a Nanorobotic Manipulation System. <i>Lecture Notes in Computer Science</i> , <b>2017</b> , 84-93	0.9	
50	In situbending and recovery characterization of hollow glass nanoneedle based on nanorobotic manipulation. <i>Journal of Micromechanics and Microengineering</i> , <b>2017</b> , 27, 095011	2	4
49	Effect of alignment angle on the alignment accuracy of a miniature rotation robot for microscopy imaging. <i>International Journal of Advanced Robotic Systems</i> , <b>2017</b> , 14, 172988141770357	1.4	1
48	. <i>IEEE/ASME Transactions on Mechatronics</i> , <b>2017</b> , 22, 2746-2756	5.5	5
47	Ultrasonic robotic system for noncontact small object manipulation based on Kinect gesture control. <i>International Journal of Advanced Robotic Systems</i> , <b>2017</b> , 14, 172988141773873	1.4	2
46	Hydrothermal synthesis of gold nanoplates with different size ranges <b>2017</b> ,		1
45	Development of a New Ankle Rehabilitation Robot MKA-IV <b>2017</b> ,		1
44	Recent Advances on In Situ SEM Mechanical and Electrical Characterization of Low-Dimensional Nanomaterials. <i>Scanning</i> , <b>2017</b> , 2017, 1985149	1.6	12
43	Mechanism design of an ankle robot MKA-III for rehabilitation training <b>2016</b> ,		2
42	Side-to-Side Cold Welding for Controllable Nanogap Formation from "Dumbbell" Ultrathin Gold Nanorods. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2016</b> , 8, 13506-11	9.5	12
41	Sensing and Intelligent Perception in Robotic Applications. <i>Journal of Sensors</i> , <b>2016</b> , 2016, 1-1	2	1
40	Surface defect detection of magnetic microwires by miniature rotatable robot inside SEM. <i>AIP Advances</i> , <b>2016</b> , 6, 095309	1.5	9

39	Development of lower limb motion detection based on LPMS <b>2016</b> ,		3
38	Development of lower limb rehabilitation evaluation system based on virtual reality technology <b>2016</b> ,		2
37	Development of an ankle robot MKA-III for rehabilitation training <b>2016</b> ,		1
36	Vision-based Nano Robotic System for High-throughput Non-embedded Cell Cutting. <i>Scientific Reports</i> , <b>2016</b> , 6, 22534	4.9	27
35	Hip, knee and ankle motion angle detection based on inertial sensor <b>2016</b> ,		2
34	Controllable 3D alginate hydrogel patterning via visible-light induced electrodeposition. <i>Biofabrication</i> , <b>2016</b> , 8, 025004	10.5	18
33	Bending spring rate investigation of nanopipette for cell injection. <i>Nanotechnology</i> , <b>2015</b> , 26, 155702	3.4	9
32	Design, Simulation and Fabrication of Triaxial MEMS High Shock Accelerometer. <i>Journal of Nanoscience and Nanotechnology</i> , <b>2015</b> , 15, 2952-7	1.3	3
31	Development of a rehabilitation robot for hand and wrist rehabilitation training <b>2015</b> ,		4
30	Mechanism design and control strategies of an ankle robot for rehabilitation training <b>2015</b> ,		6
29	Dual-MWCNT Probe Thermal Sensor Assembly and Evaluation Based on Nanorobotic Manipulation inside a Field-Emission-Scanning Electron Microscope. <i>International Journal of Advanced Robotic Systems</i> , <b>2015</b> , 12, 21	1.4	2
28	Paper-Based Electrodeposition Chip for 3D Alginate Hydrogel Formation. <i>Micromachines</i> , <b>2015</b> , 6, 1546-1559	3.5	10
27	Multidirectional Image Sensing for Microscopy Based on a Rotatable Robot. <i>Sensors</i> , <b>2015</b> , 15, 31566-80	3.8	14
26	Effect of the Tip Size on AFM Cantilever Based Force Sensor. <i>Journal of Sensors</i> , <b>2015</b> , 2015, 1-8	2	3
25	. <i>IEEE/ASME Transactions on Mechatronics</i> , <b>2015</b> , 20, 3009-3017	5.5	28
24	In Situ Nanocharacterization of Yeast Cells Using ESEM and FIB. <i>Fungal Biology</i> , <b>2015</b> , 109-123	2.3	
23	Self-Actuating Asymmetric Platinum Catalytic Mobile Nanorobot. <i>IEEE Transactions on Robotics</i> , <b>2014</b> , 30, 33-39	6.5	24
22	State of the art: micro-nanorobotic manipulation in single cell analysis. <i>Robotics and Biomimetics</i> , <b>2014</b> , 1,		24

21	Biodegradable porous sheet-like scaffolds for soft-tissue engineering using a combined particulate leaching of salt particles and magnetic sugar particles. <i>Journal of Bioscience and Bioengineering</i> , <b>2013</b> , 116, 126-31	3.3	21
20	Magnetic manipulation for spatially patterned alginate hydrogel microfibers <b>2013</b> ,		1
19	Single cell stiffness measurement at various humidity conditions by nanomanipulation of a nano-needle. <i>Nanotechnology</i> , <b>2013</b> , 24, 145703	3.4	16
18	Multi-slicing of <i>C. elegans</i> tissue using micro-nanocutting probe based on nanomanipulation <b>2012</b> ,		1
17	Single cell adhesion force measurement for cell viability identification using an AFM cantilever-based micro putter. <i>Measurement Science and Technology</i> , <b>2011</b> , 22, 115802	2	20
16	Study of the time effect on the strength of cell-cell adhesion force by a novel nano-picker. <i>Biochemical and Biophysical Research Communications</i> , <b>2011</b> , 409, 160-5	3.4	22
15	Evaluation of the single yeast cell's adhesion to ITO substrates with various surface energies via ESEM nanorobotic manipulation system. <i>IEEE Transactions on Nanobioscience</i> , <b>2011</b> , 10, 217-24	3.4	23
14	Effect of ambient humidity on the strength of the adhesion force of single yeast cell inside environmental-SEM. <i>Ultramicroscopy</i> , <b>2011</b> , 111, 1176-83	3.1	27
13	Nano-gyroscope assembly using Carbon Nanotube based on nanorobotic manipulation <b>2011</b> ,		4
12	Evaluation of nanoknife's edge angle for single cell cutting by using nanorobotic manipulators inside ESEM <b>2011</b> ,		1
11	Single cell adhesion force measurement for viability identification using nanorobotic manipulation system inside ESEM <b>2011</b> ,		3
10	Design and characterization of nanoknife with buffering beam for in situ single-cell cutting. <i>Nanotechnology</i> , <b>2011</b> , 22, 305701	3.4	17
9	Characterization of oscillating nano knife for single cell cutting by nanorobotic manipulation system inside ESEM <b>2011</b> ,		3
8	Cell-cell adhesion force measurement using nano picker via nanorobotic manipulators inside ESEM <b>2010</b> ,		3
7	Nano knife fabrication and calibration for single cell cutting inside environmental SEM <b>2010</b> ,		3
6	. <i>IEEE Industrial Electronics Magazine</i> , <b>2010</b> , 4, 13-22	6.2	16
5	Single cell penetration using nano-pipette by E-SEM nanorobotic manipulation system <b>2009</b> ,		1
4	A Sliding Mode Flux-Linkage Controller With Integral Compensation for Switched Reluctance Motor. <i>IEEE Transactions on Magnetics</i> , <b>2009</b> , 45, 3322-3328	2	28

3	In-situ single cell manipulation via nanorobotic manipulation system inside E-SEM <b>2009</b> ,		10
2	Magnetic Artificial Cilia Carpets for Transport, Mixing, and Directional Diffusion. <i>Advanced Engineering Materials</i> ,2101399	3.5	2
1	Surface Texture Recognition by Deep Learning-Enhanced Tactile Sensing. <i>Advanced Intelligent Systems</i> ,2100076	6	2