

Zhigang Wu

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.

75
papers

4,361
citations

28
h-index

65
g-index

82
ext. papers

5,025
ext. citations

6.6
avg, IF

5.89
L-index

#	Paper	IF	Citations
75	Microfluidic systems toward blood hemostasis monitoring and thrombosis diagnosis: From design principles to micro/nano fabrication technologies. <i>View</i> , 2022 , 3, 20200183	7.8	0
74	Wireless liquid-alloy-based induction heating for soft devices by alternating magnetic field: from characterization to application. <i>Sensors and Actuators A: Physical</i> , 2022 , 113538	3.9	0
73	Anisotropic Shear-Sensitive Tactile Sensors with Programmable Elastomers for Robotic Manipulations. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 51426-51435	9.5	2
72	Programmable and reprocessable multifunctional elastomeric sheets for soft origami robots. <i>Science Robotics</i> , 2021 , 6,	18.6	9
71	Dynamically Conformal Mask Printing of Liquid Alloy Circuits on Morphing Objects. <i>Advanced Materials Technologies</i> , 2021 , 6, 2001274	6.8	6
70	Intelligent Soft Surgical Robots for Next-Generation Minimally Invasive Surgery. <i>Advanced Intelligent Systems</i> , 2021 , 3, 2100011	6	13
69	Liquid Alloy Circuits: Dynamically Conformal Mask Printing of Liquid Alloy Circuits on Morphing Objects (Adv. Mater. Technol. 6/2021). <i>Advanced Materials Technologies</i> , 2021 , 6, 2170034	6.8	
68	Facile fabrication of sensitivity-tunable strain sensors based on laser-patterned micro-nano structures. <i>Journal of Micromechanics and Microengineering</i> , 2021 , 31, 085003	2	3
67	Stiffness Preprogrammable Soft Bending Pneumatic Actuators for High-Efficient, Conformal Operation. <i>Soft Robotics</i> , 2021 ,	9.2	8
66	Pneumatic Enabled Vertical Interconnect Access of Liquid Alloy Circuits toward Highly Integrated Stretchable Electronics. <i>Advanced Materials Technologies</i> , 2021 , 6, 2000966	6.8	5
65	High-sensitivity liquid-metal-based contact lens sensor for continuous intraocular pressure monitoring. <i>Journal of Micromechanics and Microengineering</i> , 2021 , 31, 035006	2	5
64	Skin-electrode iontronic interface for mechanosensing. <i>Nature Communications</i> , 2021 , 12, 4731	17.4	19
63	Thrombogenicity of microfluidic chip surface manipulation: Facile, one-step, none-protein technique for extreme wettability contrast micropatterning. <i>Sensors and Actuators B: Chemical</i> , 2021 , 343, 130085	8.5	3
62	Head-compliant microstrip split ring resonator for non-invasive healing monitoring after craniostyosis-based surgery. <i>Healthcare Technology Letters</i> , 2020 , 7, 29-34	1.9	2
61	Facile Fabrication of Self-Similar Hierarchical Micro-Nano Structures for Multifunctional Surfaces via Solvent-Assisted UV-Laser. <i>Micromachines</i> , 2020 , 11,	3.3	5
60	Hydroprinted Liquid-Alloy-Based Morphing Electronics for Fast-Growing/Tender Plants: From Physiology Monitoring to Habit Manipulation. <i>Small</i> , 2020 , 16, e2003833	11	17
59	Tuning the Rigidity of Silk Fibroin for the Transfer of Highly Stretchable Electronics. <i>Advanced Functional Materials</i> , 2020 , 30, 2001518	15.6	16

58	High-Fidelity Conformal Printing of 3D Liquid Alloy Circuits for Soft Electronics. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 7148-7156	9.5	65
57	Microfluidic contact lenses for unpowered, continuous and non-invasive intraocular pressure monitoring. <i>Sensors and Actuators A: Physical</i> , 2019 , 295, 177-187	3.9	25
56	High-Performance Liquid Alloy Patterning of Epidermal Strain Sensors for Local Fine Skin Movement Monitoring. <i>Soft Robotics</i> , 2019 , 6, 414-421	9.2	12
55	High Precision Thermoforming 3D-Conformable Electronics with a Phase-Changing Adhesion Interlayer. <i>Micromachines</i> , 2019 , 10,	3.3	6
54	PEDOT:PSS/Grafted-PDMS Electrodes for Fully Organic and Intrinsically Stretchable Skin-like Electronics. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 10373-10379	9.5	49
53	Sandwiched Polyethylene Shrink Film Masking with Tunable Resolution and Shape for Liquid Alloy Patterning. <i>ACS Applied Polymer Materials</i> , 2019 , 1, 145-151	4.3	6
52	Seamless modulus gradient structures for highly resilient, stretchable system integration. <i>Materials Today Physics</i> , 2018 , 4, 28-35	8	19
51	A Highly Sensitive Flexible Capacitive Tactile Sensor with Sparse and High-Aspect-Ratio Microstructures. <i>Advanced Electronic Materials</i> , 2018 , 4, 1700586	6.4	154
50	One-Step Selective Adhesive Transfer Printing for Scalable Fabrication of Stretchable Electronics. <i>Advanced Materials Technologies</i> , 2018 , 3, 1700264	6.8	17
49	Thermal, Waterproof, Breathable, and Antibacterial Cloth with a Nanoporous Structure. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 2026-2032	9.5	90
48	A method of manufacturing microfluidic contact lenses by using irreversible bonding and thermoforming. <i>Journal of Micromechanics and Microengineering</i> , 2018 , 28, 105008	2	13
47	Ionic Skin with Biomimetic Dielectric Layer Templated from Calathea Zebrine Leaf. <i>Advanced Functional Materials</i> , 2018 , 28, 1802343	15.6	129
46	Natural Plant Materials as Dielectric Layer for Highly Sensitive Flexible Electronic Skin. <i>Small</i> , 2018 , 14, e1801657	11	99
45	On-Demand Multi-Resolution Liquid Alloy Printing Based on Viscoelastic Flow Squeezing. <i>Polymers</i> , 2018 , 10,	4.5	7
44	High purity and viability cell separation of a bacterivorous jakobid flagellate based on a steep velocity gradient induced soft inertial force.. <i>RSC Advances</i> , 2018 , 8, 35512-35520	3.7	5
43	Tunnel Encapsulation Technology for Durability Improvement in Stretchable Electronics Fabrication. <i>Micromachines</i> , 2018 , 9,	3.3	2
42	Artificial Skin: Ionic Skin with Biomimetic Dielectric Layer Templated from Calathea Zebrine Leaf (Adv. Funct. Mater. 37/2018). <i>Advanced Functional Materials</i> , 2018 , 28, 1870264	15.6	3
41	Electronic Skins: Natural Plant Materials as Dielectric Layer for Highly Sensitive Flexible Electronic Skin (Small 35/2018). <i>Small</i> , 2018 , 14, 1870161	11	0

40	Stretchable Thermoelectric Generators Metallized with Liquid Alloy. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 15791-15797	9.5	50
39	Dynamic Antibiotic Susceptibility Test via a 3D Microfluidic Culture Device. <i>Methods in Molecular Biology</i> , 2017 , 1572, 365-377	1.4	
38	Viscosity-difference-induced asymmetric selective focusing for large stroke particle separation. <i>Microfluidics and Nanofluidics</i> , 2016 , 20, 1	2.8	9
37	PDMS-Based Elastomer Tuned Soft, Stretchable, and Sticky for Epidermal Electronics. <i>Advanced Materials</i> , 2016 , 28, 5830-6	24	196
36	Concentration-dependent viscous mixing in microfluidics: modelings and experiments. <i>Microfluidics and Nanofluidics</i> , 2016 , 20, 1	2.8	10
35	Capillary Self-Alignment of Microchips on Soft Substrates. <i>Micromachines</i> , 2016 , 7,	3.3	10
34	A Rapid Prototyping Technique for Microfluidics with High Robustness and Flexibility. <i>Micromachines</i> , 2016 , 7,	3.3	7
33	Microfluidic Stretchable Radio-Frequency Devices. <i>Proceedings of the IEEE</i> , 2015 , 103, 1211-1225	14.3	23
32	Tape transfer atomization patterning of liquid alloys for microfluidic stretchable wireless power transfer. <i>Scientific Reports</i> , 2015 , 5, 8419	4.9	105
31	Stretchable wireless power transfer with a liquid alloy coil 2015 ,		1
30	Entangled sciences: the art of microfluidic mixing and separation. <i>Journal of Micromechanics and Microengineering</i> , 2015 , 25, 120301	2	3
29	Mechanically Stretchable and Electrically Insulating Thermal Elastomer Composite by Liquid Alloy Droplet Embedment. <i>Scientific Reports</i> , 2015 , 5, 18257	4.9	84
28	Time lapse investigation of antibiotic susceptibility using a microfluidic linear gradient 3D culture device. <i>Lab on A Chip</i> , 2014 , 14, 3409-18	7.2	51
27	Graphene as a Diffusion Barrier in Galinstan-Solid Metal Contacts. <i>IEEE Transactions on Electron Devices</i> , 2014 , 61, 2996-3000	2.9	29
26	A Contact Angle Study of the Interaction between Embedded Amphiphilic Molecules and the PDMS Matrix in an Aqueous Environment. <i>Micromachines</i> , 2014 , 5, 515-527	3.3	6
25	Adhesive Transfer Soft Lithography: Low-Cost and Flexible Rapid Prototyping of Microfluidic Devices. <i>Micro and Nanosystems</i> , 2014 , 6, 42-49	0.6	5
24	Surface Modification of PDMS in Microfluidic Devices 2014 , 141-150		
23	Tape transfer printing of a liquid metal alloy for stretchable RF electronics. <i>Sensors</i> , 2014 , 14, 16311-21	3.8	52

22	A tunable spherical cap microfluidic electrically small antenna. <i>Small</i> , 2013 , 9, 3230-4	11	33
21	Passive and Active Micromixers 2013 , 175-203		
20	Liquid alloy printing of microfluidic stretchable electronics. <i>Lab on A Chip</i> , 2012 , 12, 4657-64	7.2	170
19	Microfluidic electronics. <i>Lab on A Chip</i> , 2012 , 12, 2782-91	7.2	214
18	A Microfluidic, Reversibly Stretchable, Large-Area Wireless Strain Sensor. <i>Advanced Functional Materials</i> , 2011 , 21, 2282-2290	15.6	168
17	Microfluidic stretchable RF electronics. <i>Lab on A Chip</i> , 2010 , 10, 3227-34	7.2	144
16	Liquid metal stretchable unbalanced loop antenna. <i>Applied Physics Letters</i> , 2009 , 94, 144103	3.4	187
15	Surface modification of PDMS by gradient-induced migration of embedded Pluronic. <i>Lab on A Chip</i> , 2009 , 9, 1500-3	7.2	54
14	Foldable and Stretchable Liquid Metal Planar Inverted Cone Antenna. <i>IEEE Transactions on Antennas and Propagation</i> , 2009 , 57, 3765-3771	4.9	112
13	Soft inertial microfluidics for high throughput separation of bacteria from human blood cells. <i>Lab on A Chip</i> , 2009 , 9, 1193-9	7.2	185
12	Microfluidic Hydrodynamic Cell Separation: A Review. <i>Micro and Nanosystems</i> , 2009 , 1, 181-192	0.6	26
11	Microfluidic high viability neural cell separation using viscoelastically tuned hydrodynamic spreading. <i>Biomedical Microdevices</i> , 2008 , 10, 631-8	3.7	24
10	Investigation of active interface control of pressure driven two-fluid flow in microchannels. <i>Sensors and Actuators A: Physical</i> , 2007 , 133, 323-328	3.9	7
9	Microfluidic continuous particle/cell separation via electroosmotic-flow-tuned hydrodynamic spreading. <i>Journal of Micromechanics and Microengineering</i> , 2007 , 17, 1992-1999	2	41
8	Hydrodynamic focusing in microchannels under consideration of diffusive dispersion: theories and experiments. <i>Sensors and Actuators B: Chemical</i> , 2005 , 107, 965-974	8.5	76
7	Micromixers—review. <i>Journal of Micromechanics and Microengineering</i> , 2005 , 15, R1-R16	2	1247
6	Convective-diffusive transport in parallel lamination micromixers. <i>Microfluidics and Nanofluidics</i> , 2005 , 1, 208-217	2.8	66
5	Rapid mixing using two-phase hydraulic focusing in microchannels. <i>Biomedical Microdevices</i> , 2005 , 7, 13-20	7	40

4	Nonlinear diffusive mixing in microchannels: theory and experiments. <i>Journal of Micromechanics and Microengineering</i> , 2004 , 14, 604-611	2	90
3	Liquid Metal Microscale Deposition enabled High Resolution and Density Epidermal Microheater for Localized Ectopic Expression in Drosophila. <i>Advanced Materials Technologies</i> ,2100903	6.8	1
2	A Facile Liquid Alloy Wetting Enhancing Strategy on Super-Hydrophobic Lotus Leaves for Plant-Hybrid System Implementation. <i>Advanced Materials Interfaces</i> ,2200516	4.6	1
1	One-Step Soft Templated Selective Milling-Based Circuit Patterning for Eco-Friendly and High-Throughput Manufacturing of Flexible Electronics. <i>Advanced Materials Technologies</i> ,2200092	6.8	