Tianfeng Zhou

List of Publications by Year
in descending order

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		331670	197818
108	2,765	21	49
papers	citations	h-index	g-index

112	112	112	2557
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Design of robust superhydrophobic surfaces. Nature, 2020, 582, 55-59.	27.8	1,124
2	Folo: Latency and Quality Optimized Task Allocation in Vehicular Fog Computing. IEEE Internet of Things Journal, 2019, 6, 4150-4161.	8.7	140
3	Superoleophobic Slippery Lubricantâ€Infused Surfaces: Combining Two Extremes in the Same Surface. Advanced Materials, 2018, 30, e1803890.	21.0	106
4	Hybrid Microassembly Combining Robotics and Water Droplet Self-Alignment. IEEE Transactions on Robotics, 2010, 26, 965-977.	10.3	85
5	3D Printing of Superhydrophobic Objects with Bulk Nanostructure. Advanced Materials, 2021, 33, e2106068.	21.0	84
6	Mapping microscale wetting variations on biological and synthetic water-repellent surfaces. Nature Communications, 2017, 8, 1798.	12.8	77
7	Controlling the motion of multiple objects on a Chladni plate. Nature Communications, 2016, 7, 12764.	12.8	71
8	Phase transitions as intermediate steps in the formation of molecularly engineered protein fibers. Communications Biology, 2018, 1, 86.	4.4	59
9	Surface tension-driven self-alignment. Soft Matter, 2017, 13, 304-327.	2.7	53
10	Hybrid microhandling: a unified view of robotic handling and self-assembly. Journal of Micro-Nano Mechatronics, 2008, 4, 5-16.	1.0	42
11	Controlling Liquid Spreading Using Microfabricated Undercut Edges. Advanced Materials, 2013, 25, 2275-2278.	21.0	40
12	Digitalization of mine operations: Scenarios to benefit in real-time truck dispatching. International Journal of Mining Science and Technology, 2017, 27, 229-236.	10.3	36
13	Sliding droplets on hydrophilic/superhydrophobic patterned surfaces for liquid deposition. Applied Physics Letters, 2016, 108, .	3.3	35
14	Improving fleet management in mines: The benefit of heterogeneous match factor. European Journal of Operational Research, 2017, 261, 1052-1065.	5.7	35
15	Capillary-driven self-assembly of microchips on oleophilic/oleophobic patterned surface using adhesive droplet in ambient air. Applied Physics Letters, 2011, 99, 034104.	3.3	34
16	Automatic dextrous microhandling based on a 6-DOF microgripper. Journal of Micromechatronics, 2006, 3, 359-387.	1.9	30
17	Self-alignment in the stacking of microchips with mist-induced water droplets. Journal of Micromechanics and Microengineering, 2011, 21, 015016.	2.6	25
18	Path following control for towing system of cylindrical drilling platform in presence of disturbances and uncertainties. ISA Transactions, 2019, 95, 185-193.	5.7	25

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19	Microassembly system with controlled environment. Journal of Micromechatronics, 2002, 2, 227-248.	1.9	24
20	Surface-tension driven self-assembly of microchips on hydrophobic receptor sites with water using forced wetting. Applied Physics Letters, 2012, 101, 114105.	3.3	24
21	A Generalized Predictive Control-Based Path Following Method for Parafoil Systems in Wind Environments. IEEE Access, 2019, 7, 42586-42595.	4.2	24
22	Forceâ€Based Wetting Characterization of Stochastic Superhydrophobic Coatings at Nanonewton Sensitivity. Advanced Materials, 2021, 33, e2105130.	21.0	24
23	A 3-DOF piezohydraulic parallel micromanipulator. , 0, , .		20
24	Self-alignment of RFID dies on four-pad patterns with water droplet for sparse self-assembly. Journal of Micromechanics and Microengineering, 2011, 21, 095024.	2.6	19
25	Three-dimensional position control of a parallel micromanipulator using visual servoing. , 2000, , .		18
26	Surface-Tension-Driven Self-Alignment of Microchips on Black-Silicon-Based Hybrid Template in Ambient Air. Journal of Microelectromechanical Systems, 2013, 22, 739-746.	2.5	18
27	Surface Tension-Driven Self-Alignment of Microchips on Low-Precision Receptors. Journal of Microelectromechanical Systems, 2014, 23, 819-828.	2.5	18
28	Motion of Heavy Particles on a Submerged Chladni Plate. Physical Review Letters, 2019, 122, 184301.	7.8	18
29	Low-height sharp edged patterns for capillary self-alignment assisted hybrid microassembly. Journal of Micro-Bio Robotics, 2014, 9, 1-10.	2.1	17
30	Self-transport and self-alignment of microchips using microscopic rain. Scientific Reports, 2015, 5, 14966.	3.3	17
31	Microhandling using Robotic Manipulation and Capillary Self-alignment. , 2006, , .		16
32	Capillary Self-Alignment of Microchips on Soft Substrates. Micromachines, 2016, 7, 41.	2.9	16
33	Manipulating Superparamagnetic Microparticles with an Electromagnetic Needle. Advanced Materials Technologies, 2018, 3, 1700177.	5.8	16
34	Microassembly station with controlled environment. , 2001, , .		15
35	Voice coil based hopping mechanism for microrobot. , 2009, , .		13
36	Tunable and Magnetic Thiolâ€“ene Micropillar Arrays. Macromolecular Rapid Communications, 2020, 41, e1900522.	3.9	13

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37	Model-Free Control for Dynamic-Field Acoustic Manipulation Using Reinforcement Learning. IEEE Access, 2020, 8, 20597-20606.	4.2	13
38	Automatic Noncontact Extraction and Independent Manipulation of Magnetic Particles Using Electromagnetic Needle. IEEE/ASME Transactions on Mechatronics, 2020, 25, 931-941.	5.8	12
39	Environmental influences on microassembly. , 0, , .		11
40	Experimental study on droplet based hybrid microhandling using high speed camera. , 2008, , .		11
41	Three dimensional hybrid microassembly combining robotic microhandling and self-assembly. , 2009, , .		11
42	Silicon capillary gripper with self-alignment capability. , 2011, , .		11
43	Two-Dimensional Manipulation in Mid-Air Using a Single Transducer Acoustic Levitator. Micromachines, 2019, 10, 257.	2.9	11
44	Ferrofluidic Manipulator: Automatic Manipulation of Nonmagnetic Microparticles at the Airâ€“Ferrofluid Interface. IEEE/ASME Transactions on Mechatronics, 2021, 26, 1932-1940.	5.8	11
45	Programmable assembly of particles on a Chladni plate. Science Advances, 2021, 7, eabi7716.	10.3	11
46	Interfacial mechanical testing of atomic layer deposited TiO2 and Al2O3 on a silicon substrate by the use of embedded SiO2 microspheres. RSC Advances, 2014, 4, 37320-37328.	3.6	10
47	Position control of a 3 DOF piezohydraulic parallel micromanipulator. , 0, , .		9
48	Distributed Event-Triggered Circular Formation Control for Multiple Anonymous Mobile Robots With Order Preservation and Obstacle Avoidance. IEEE Access, 2020, 8, 167288-167299.	4.2	9
49	An actuation system for parallel link micromanipulators. , 0, , .		8
50	Control issues in micromanipulation. , 0, , .		8
51	Capillary self-alignment assisted hybrid robotic handling for ultra-thin die stacking. , 2013, , .		7
52	Nanoliter deposition on star-shaped hydrophilicâ€“superhydrophobic patterned surfaces. Soft Matter, 2018, 14, 7500-7506.	2.7	7
53	Virtual environment for operations in the microworld. , 2000, , .		6
54	Simulating adhesion forces between arbitrarily shaped objects in micro/nano-handling operations. , 0, , .		6

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55	6 DOF dexterous microgripper for inspection of microparts. , 0, , .		6
56	Evaluation of adhesion forces between arbitrary objects for micromanipulation. Journal of Micromechatronics, 2006, 3, 221-238.	1.9	6
57	Strategies in Automatic Microhandling. , 2007, , .		6
58	Picosecond Laser Machining of Metallic and Polymer Substrates for Fluidic Driven Self-Alignment. Physics Procedia, 2012, 39, 628-635.	1.2	6
59	Multi-particle acoustic manipulation on a Chladni plate. , 2017, , .		6
60	Superoleophobicity: Superoleophobic Slippery Lubricantâ€Infused Surfaces: Combining Two Extremes in the Same Surface (Adv. Mater. 45/2018). Advanced Materials, 2018, 30, 1870338.	21.0	6
61	Capillary Pick-and-Place of Glass Microfibers. IEEE Access, 2021, 9, 15074-15083.	4.2	6
62	Modelling of a piezohydraulic actuator for control of a parallel micromanipulator. , 0, , .		5
63	Temperature and Humidity Effects on Micro/Nano Handling. Materials Science Forum, 2006, 532-533, 681-684.	0.3	5
64	Force sensing using artificial magnetic cilia. , 2012, , .		5
65	Hybrid microassembly for massively parallel assembly of microchips with water mist. , 2012, , .		5
66	Maskless, Highâ€Precision, Persistent, and Extreme Wettingâ€Contrast Patterning in an Environmental Scanning Electron Microscope. Small, 2016, 12, 1847-1853.	10.0	5
67	Laser-Assisted Mist Capillary Self-Alignment. Micromachines, 2017, 8, 361.	2.9	5
68	Observer-Based Event-Triggered Circle Formation Control for First- and Second-Order Multiagent Systems. Complexity, 2020, 2020, 1-12.	1.6	5
69	Robotic Threading from a Gel-like Substance Based on Impedance Control With Force Tracking. IEEE Robotics and Automation Letters, 2022, 7, 33-40.	5.1	5
70	Motion and trapping of micro- and millimeter-sized particles on the airâ€“paramagnetic-liquid interface. Physical Review E, 2021, 103, L010601.	2.1	5
71	Load Frequency Active Disturbance Rejection Control for Multi-Source Power System Based on Soft Actor-Critic. Energies, 2021, 14, 4804.	3.1	5
72	Non-Contact Cooperative Manipulation of Magnetic Microparticles Using Two Robotic Electromagnetic Needles. IEEE Robotics and Automation Letters, 2022, 7, 1605-1611.	5.1	5

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73	Hybrid micro assembly of microchips on segmented patterns. , 2010, , .		4
74	Surface Tension-Based Alignment of Microfibers on Hydrophilicâ€“Superhydrophobic Grooved Surfaces. Micromachines, 2020, 11, 973.	2.9	4
75	Low-Cost Laser Micromachining Super Hydrophilicâ€“Super Hydrophobic Microgrooves for Robotic Capillary Micromanipulation of Microfibers. Micromachines, 2021, 12, 854.	2.9	4
76	Ejected Droplet-Directed Transportation and Self-Alignment of Microfibers to Micro Trenches. Journal of Microelectromechanical Systems, 2021, 30, 751-758.	2.5	4
77	Capillary Transport of Miniature Soft Ribbons. Micromachines, 2019, 10, 684.	2.9	3
78	Rapid mode-switching for acoustic manipulation. , 2019, , .		3
79	In-flight Wind Field Identification and Prediction of Parafoil Systems. Applied Sciences (Switzerland), 2020, 10, 1958.	2.5	3
80	Voltage Flicker Detection Based on Probability Resampling. Energies, 2020, 13, 3350.	3.1	3
81	Distributed Finite-time Bipartite Consensus of Multi-agent Systems via Event-triggered Control. IFAC-PapersOnLine, 2020, 53, 2927-2932.	0.9	3
82	<title>Modeling of micro-operations for virtual micromanipulation</title>. , 1999, , .		2
83	Environmental effects on droplet self-alignment assisted hybrid microassembly. , 2009, , .		2
84	Microassembly combining pick-and-place and water mist. , 2010, , .		2
85	High-accuracy positioning of microchips on patterns with jagged edges using hybrid microassembly. , 2012, , .		2
86	Undercut edges for robust capillary self-alignment in hybrid microassembly. , 2013, , .		2
87	Characterization of nano-coated micro- and nanostructures by pushing. , 2014, , .		2
88	Hybrid microassembly of chips on low precision patterns assisted by capillary self-alignment. , 2011, , .		2
89	Automatic dextrous handling of micro components using a 6 DOF microgripper. , 0, , .		1
90	Neural network based modeling of a piezodisk dynamics. , 2007, , .		1

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91	Swallowable biotelemetry device for analysis of Irritable Bowel Syndrome. , 2008, , .		1
92	Van der Waals force computation of freely oriented rough surfaces for micromanipulation purposes. , 2010, , .		1
93	Hybrid microassembly of chips on low precision patterns assisted by capillary self-alignment. , 2011, , .		1
94	Controlling Liquid Spreading Using Microfabricated Undercut Edges (Adv. Mater. 16/2013). Advanced Materials, 2013, 25, 2274-2274.	21.0	1
95	Microsystem integration using hybrid microassembly. , 2014, , .		1
96	Object tracking in robotic micromanipulation by supervised ensemble learning classifier. , 2016, , .		1
97	Hybrid microassembly combining laser die transfer and capillary self-alignment. , 2017, , .		1
98	A Fall Posture Classification and Recognition Method Based on Wavelet Packet Transform and Support Vector Machine. Applied Sciences (Switzerland), 2021, 11, 5030.	2.5	1
99	Shape Memory Polymer-Based Insertable Electrode Array Towards Minimally Invasive Subdural Implantation. IEEE Sensors Journal, 2021, 21, 17282-17289.	4.7	1
100	Temperature and Humidity Effects on Micro/Nano Handling. Materials Science Forum, 0, , 681-684.	0.3	1
101	Guest Editorial Microassembly for Manufacturing at Small Scales. IEEE Transactions on Automation Science and Engineering, 2013, 10, 483-484.	5.2	0
102	Experimental investigation on hybrid microassembly of microchips on sharp edged patterns. , 2013, , .		0
103	Vision based event classification in robotic micromanipulation. , 2017, , .		0
104	Potential of Laser Doppler Flowmetry in the Medical Needle Insertion Procedures. , 2019, 2019, 71-74.		0
105	Formation of Nanospikes on AISI 420 Martensitic Stainless Steel under Gallium Ion Bombardment. Nanomaterials, 2019, 9, 1492.	4.1	0
106	Distributed Self-triggered Circular Formation Control for Multi-robot Systems. , 2020, , .		0
107	Capillary micromanipulation of microfibers. , 2021, , .		0
108	LADRC-based Path Following Control for Cylindrical Drilling Platform Towing System. , 2020, , .		0