Tingrui Pan

List of Publications by Year in descending order

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118	4,046	126907	138484
papers	citations	33 h-index	58 g-index

119	119	119	5251
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Flexible Transparent Iontronic Film for Interfacial Capacitive Pressure Sensing. Advanced Materials, 2015, 27, 6055-6062.	21.0	354
2	Supercapacitive Iontronic Nanofabric Sensing. Advanced Materials, 2017, 29, 1700253.	21.0	187
3	Photopatternable Conductive PDMS Materials for Microfabrication. Advanced Functional Materials, 2008, 18, 1912-1921.	14.9	176
4	A magnetically driven PDMS micropump with ball check-valves. Journal of Micromechanics and Microengineering, 2005, 15, 1021-1026.	2.6	158
5	First Decade of Interfacial Iontronic Sensing: From Droplet Sensors to Artificial Skins. Advanced Materials, 2021, 33, e2003464.	21.0	155
6	Imperceptible Epidermalâ€“Iontronic Interface for Wearable Sensing. Advanced Materials, 2018, 30, 1705122.	21.0	150
7	Droplet-based interfacial capacitive sensing. Lab on A Chip, 2012, 12, 1110.	6.0	137
8	Flexible and Superwettable Bands as a Platform toward Sweat Sampling and Sensing. Analytical Chemistry, 2019, 91, 4296-4300.	6.5	136
9	Iontronic microdroplet array for flexible ultrasensitive tactile sensing. Lab on A Chip, 2014, 14, 1107.	6.0	123
10	Droplet-driven transports on superhydrophobic-patterned surface microfluidics. Lab on A Chip, 2011, 11, 3642.	6.0	112
11	Interfacial microfluidic transport on micropatterned superhydrophobic textile. Lab on A Chip, 2013, 13, 1937.	6.0	90
12	Endogenous electric currents might guide rostral migration of neuroblasts. EMBO Reports, 2013, 14, 184-190.	4.5	85
13	Allâ€inâ€One Iontronic Sensing Paper. Advanced Functional Materials, 2019, 29, 1807343.	14.9	85
14	Microflotronics: A Flexible, Transparent, Pressureâ€Sensitive Microfluidic Film. Advanced Functional Materials, 2014, 24, 6195-6203.	14.9	66
15	Surface microfluidics fabricated by photopatternable superhydrophobic nanocomposite. Microfluidics and Nanofluidics, 2011, 10, 991-997.	2.2	63
16	From Cleanroom to Desktop: Emerging Micro-Nanofabrication Technology for Biomedical Applications. Annals of Biomedical Engineering, 2011, 39, 600-620.	2.5	62
17	Direct projection on dry-film photoresist (DP2): do-it-yourself three-dimensional polymer microfluidics. Lab on A Chip, 2009, 9, 1128.	6.0	59
18	Flexible Superwettable Tapes for On-Site Detection of Heavy Metals. Analytical Chemistry, 2018, 90, 14105-14110.	6.5	59

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19	Smartphone-interfaced lab-on-a-chip devices for field-deployable enzyme-linked immunosorbent assay. Biomicrofluidics, 2014, 8, 064101.	2.4	57
20	Synthetic microbial consortia enable rapid assembly of pure translation machinery. Nature Chemical Biology, 2018, 14, 29-35.	8.0	56
21	Photopatternable PEDOT:PSS/PEG hybrid thin film with moisture stability and sensitivity. Microsystems and Nanoengineering, 2017, 3, 17004.	7.0	50
22	Integrating Sensing Hydrogel Microstructures into Micropatterned Hepatocellular Cocultures. Langmuir, 2009, 25, 3880-3886.	3.5	47
23	Microfluidic tactile sensors for three-dimensional contact force measurements. Lab on A Chip, 2014, 14, 4344-4353.	6.0	47
24	Design and fabrication of a highly sensitive and naked-eye distinguishable colorimetric biosensor for chloramphenicol detection by using ELISA on nanofibrous membranes. Talanta, 2020, 217, 121054.	5.5	46
25	A Reworkable Adhesive-Free Interconnection Technology for Microfluidic Systems. Journal of Microelectromechanical Systems, 2006, 15, 267-272.	2.5	44
26	Microfluidic System for Facilitated Quantification of Nanoparticle Accumulation to Cells Under Laminar Flow. Annals of Biomedical Engineering, 2013, 41, 89-99.	2.5	42
27	Wearable microfluidics: fabric-based digital droplet flowmetry for perspiration analysis. Lab on A Chip, 2017, 17, 926-935.	6.0	40
28	Resource optimization model using novel extreme learning machine with t-distributed stochastic neighbor embedding: Application to complex industrial processes. Energy, 2021, 225, 120255.	8.8	40
29	A large-scale screen reveals genes that mediate electrotaxis in Dictyostelium discoideum. Science Signaling, 2015, 8, ra50.	3.6	39
30	Microfluidic-Enabled Print-to-Screen Platform for High-Throughput Screening of Combinatorial Chemotherapy. Analytical Chemistry, 2015, 87, 10166-10171.	6.5	39
31	Photopatternable Superhydrophobic Nanocomposites for Microfabrication. Journal of Microelectromechanical Systems, 2010, 19, 246-253.	2.5	38
32	Lab-on-a-print: from a single polymer film to three-dimensional integrated microfluidics. Lab on A Chip, 2009, 9, 1133.	6.0	36
33	Fit-to-Flow (F2F) interconnects: Universal reversible adhesive-free microfluidic adaptors for lab-on-a-chip systems. Lab on A Chip, 2011, 11, 727-732.	6.0	34
34	Collective cell migration has distinct directionality and speed dynamics. Cellular and Molecular Life Sciences, 2017, 74, 3841-3850.	5.4	33
35	Telemedical Wearable Sensing Platform for Management of Chronic Venous Disorder. Annals of Biomedical Engineering, 2016, 44, 2282-2291.	2.5	32
36	Bubble formation on superhydrophobic-micropatterned copper surfaces. Applied Thermal Engineering, 2012, 35, 112-119.	6.0	31

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37	AmbuBox: A Fast-Deployable Low-Cost Ventilator for COVID-19 Emergent Care. SLAS Technology, 2020, 25, 573-584.	1.9	31
38	Microfluidic impact printer with interchangeable cartridges for versatile non-contact multiplexed micropatterning. Lab on A Chip, 2013, 13, 1902.	6.0	30
39	FeetBeat: A Flexible Iontronic Sensing Wearable Detects Pedal Pulses and Muscular Activities. IEEE Transactions on Biomedical Engineering, 2019, 66, 3072-3079.	4.2	29
40	An Artificial Nano-Drainage Implant (ANDI) for Glaucoma Treatment. , 2006, 2006, 3174-7.		27
41	Microflotronic Arterial Tonometry for Continuous Wearable Non-Invasive Hemodynamic Monitoring. Annals of Biomedical Engineering, 2014, 42, 2278-2288.	2.5	27
42	Handwriting Iontronic Pressure Sensing Origami. ACS Applied Materials & Interfaces, 2019, 11, 46157-46164.	8.0	27
43	Modeling and Characterization of a Valved Glaucoma Drainage Device With Implications for Enhanced Therapeutic Efficacy. IEEE Transactions on Biomedical Engineering, 2005, 52, 948-951.	4.2	26
44	High-precision digital droplet pipetting enabled by a plug-and-play microfluidic pipetting chip. Lab on A Chip, 2018, 18, 2720-2729.	6.0	26
45	Stereomask lithography (SML): a universal multi-object micro-patterning technique for biological applications. Lab on A Chip, 2011, 11, 224-230.	6.0	25
46	Rotary Liquid Droplet Microbearing. Journal of Microelectromechanical Systems, 2012, 21, 721-729.	2.5	25
47	Deciphering the metabolic role of AMPK in cancer multi-drug resistance. Seminars in Cancer Biology, 2019, 56, 56-71.	9.6	25
48	Droplet digital PCR enabled by microfluidic impact printing for absolute gene quantification. Talanta, 2020, 211, 120680.	5.5	25
49	Three-dimensional surface microfluidics enabled by spatiotemporal control of elastic fluidic interface. Lab on A Chip, 2010, 10, 3271.	6.0	22
50	ElectroTaxis-on-a-Chip (ETC): an integrated quantitative high-throughput screening platform for electrical field-directed cell migration. Lab on A Chip, 2014, 14, 4398-4405.	6.0	22
51	Manually operatable on-chip bistable pneumatic microstructures for microfluidic manipulations. Lab on A Chip, 2014, 14, 3401.	6.0	21
52	A Plug-and-Play, Drug-on-Pillar Platform for Combination Drug Screening Implemented by Microfluidic Adaptive Printing. Analytical Chemistry, 2018, 90, 13969-13977.	6.5	21
53	Active-powering pressure-sensing fabric devices. Journal of Materials Chemistry A, 2020, 8, 358-368.	10.3	21
54	Thin-Film Coupled Fluid-Solid Analysis of Flow Through the Ahmedâ„¢ Glaucoma Drainage Device. Journal of Biomechanical Engineering, 2005, 127, 776-781.	1.3	20

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55	Capillary-driven automatic packaging. Lab on A Chip, 2011, 11, 1464.	6.0	20
56	Universal Nanopatternable Interfacial Bonding. Advanced Materials, 2011, 23, 5551-5556.	21.0	20
57	Multi-dimensional studies of synthetic genetic promoters enabled by microfluidic impact printing. Lab on A Chip, 2017, 17, 2198-2207.	6.0	20
58	Comparison of piezoresistive sensor to PicoPressÂ® in in-vitro interface pressure measurement. Phlebology, 2018, 33, 315-320.	1.2	19
59	Wearable Technology Design for Autism Spectrum Disorders. Archives of Design Research, 2018, 31, 37-55.	0.3	19
60	Fabrication and modeling of silicon-embedded high-Qinductors. Journal of Micromechanics and Microengineering, 2005, 15, 849-854.	2.6	18
61	Non-adhesive PEG hydrogel nanostructures for self-assembly of highly ordered colloids. Nanotechnology, 2009, 20, 075307.	2.6	18
62	Three-dimensional fit-to-flow microfluidic assembly. Biomicrofluidics, 2011, 5, 46505-465059.	2.4	18
63	Fabrication of an inexpensive, implantable cooling device for reversible brain deactivation in animals ranging from rodents to primates. Journal of Neurophysiology, 2012, 107, 3543-3558.	1.8	18
64	Reconfigurable microfluidics combined with antibody microarrays for enhanced detection of T-cell secreted cytokines. Biomicrofluidics, 2013, 7, 024105.	2.4	18
65	Microfluidic Print-to-Synthesis Platform for Efficient Preparation and Screening of Combinatorial Peptide Microarrays. Analytical Chemistry, 2018, 90, 5833-5840.	6.5	18
66	Reversible deactivation of higher-order posterior parietal areas. I. Alterations of receptive field characteristics in early stages of neocortical processing. Journal of Neurophysiology, 2014, 112, 2529-2544.	1.8	17
67	Piezoelectric-driven droplet impact printing with an interchangeable microfluidic cartridge. Biomicrofluidics, 2015, 9, 054101.	2.4	17
68	Microfluidic cap-to-dispense (Î¼CD): a universal microfluidicâ€“robotic interface for automated pipette-free high-precision liquid handling. Lab on A Chip, 2019, 19, 3405-3415.	6.0	17
69	Digital microfluidic meter-on-chip. Lab on A Chip, 2020, 20, 722-733.	6.0	17
70	Improving the Sensitivity of Nanofibrous Membrane-Based ELISA for On-Site Antibiotics Detection. ACS Sensors, 2022, 7, 1458-1466.	7.8	16
71	Ultrahigh-transparency and pressure-sensitive iontronic device for tactile intelligence. Npj Flexible Electronics, 2022, 6, .	10.7	16
72	Reversible deactivation of higher-order posterior parietal areas. II. Alterations in response properties of neurons in areas 1 and 2. Journal of Neurophysiology, 2014, 112, 2545-2560.	1.8	15

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73	Dotette: Programmable, high-precision, plug-and-play droplet pipetting. Biomicrofluidics, 2018, 12, 034107.	2.4	15
74	Reconfigurable microfluidic dilution for high-throughput quantitative assays. Lab on A Chip, 2015, 15, 2670-2679.	6.0	14
75	A flexible pressure sensor by induced ordered nano cracks filled with multilayer graphene oxide composite film as a conductive fine-wire network for higher sensitivity. Flexible and Printed Electronics, 2019, 4, 015003.	2.7	14
76	Design, Fabrication, and In Vitro Testing of an Anti-biofouling Glaucoma Micro-shunt. Annals of Biomedical Engineering, 2015, 43, 2394-2405.	2.5	13
77	EIS. , 2018, 2, 1-22.		13
78	A low-cost, programmable, and multi-functional droplet printing system for low copy number SARS-CoV-2 digital PCR determination. Sensors and Actuators B: Chemical, 2021, 348, 130678.	7.8	13
79	Label-free single-cell isolation enabled by microfluidic impact printing and real-time cellular recognition. Lab on A Chip, 2021, 21, 3695-3706.	6.0	13
80	Optimization of Electrical Stimulation for Safe and Effective Guidance of Human Cells. Bioelectricity, 2020, 2, 372-381.	1.1	13
81	Microfabrication of conductive PDMS on flexible substrates for biomedical applications. , 2009, , .		12
82	Print-to-pattern dry film photoresist lithography. Journal of Micromechanics and Microengineering, 2014, 24, 057002.	2.6	12
83	Sample-to-Answer Robotic ELISA. Analytical Chemistry, 2021, 93, 11424-11432.	6.5	12
84	Blink-sensing glasses: A flexible iontronic sensing wearable for continuous blink monitoring. IScience, 2021, 24, 102399.	4.1	11
85	The Typical Metabolic Modifiers Conferring Improvement in Cancer Resistance. Current Medicinal Chemistry, 2017, 24, 3698-3710.	2.4	11
86	Combinatorial Peptide Microarray Synthesis Based on Microfluidic Impact Printing. ACS Combinatorial Science, 2019, 21, 6-10.	3.8	9
87	Emerging optofluidic technologies for biodiagnostic applications. View, 2021, 2, 20200035.	5.3	9
88	Building protein networks in synthetic systems from the bottom-up. Biotechnology Advances, 2021, 49, 107753.	11.7	9
89	Remotely adjustable check-valves with an electrochemical release mechanism for implantable biomedical microsystems. Biomedical Microdevices, 2007, 9, 385-394.	2.8	8
90	iWRAP: A Theranostic Wearable Device With Real-Time Vital Monitoring and Auto-Adjustable Compression Level for Venous Thromboembolism. IEEE Transactions on Biomedical Engineering, 2021, 68, 2776-2786.	4.2	7

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91	Paper Electronics: Allâ€inâ€One Iontronic Sensing Paper (Adv. Funct. Mater. 11/2019). Advanced Functional Materials, 2019, 29, 1970072.	14.9	6
92	Diffusion of Protein Molecules through Microporous Nanofibrous Polyacrylonitrile Membranes. ACS Applied Polymer Materials, 2021, 3, 1618-1627.	4.4	6
93	Digital flow rate sensor based on isovolumetric droplet discretization effect by a three-supersurface structure. Microfluidics and Nanofluidics, 2019, 23, 1.	2.2	5
94	Digital droplet infusion. Lab on A Chip, 2021, 21, 502-512.	6.0	5
95	Size-tunable droplet microfluidic system using an on-chip microfluidic peristaltic pump. Sensors and Actuators A: Physical, 2022, 334, 113332.	4.1	5
96	Mobile Medicine: Can Emerging Mobile Technologies Enable Patient-Oriented Medicine?. Annals of Biomedical Engineering, 2014, 42, 2203-2204.	2.5	4
97	Wearable Sensors: Supercapacitive Iontronic Nanofabric Sensing (Adv. Mater. 36/2017). Advanced Materials, 2017, 29, .	21.0	4
98	Wearable Iontronic FMG for Classification of Muscular Locomotion. IEEE Journal of Biomedical and Health Informatics, 2022, 26, 2854-2863.	6.3	4
99	Photopatternable and photoactive hydrogel for on-demand generation of hydrogen peroxide in cell culture. Biomaterials, 2014, 35, 1762-1770.	11.4	3
100	EIS: A wearable device for epidermal pressure sensing. , 2018, , .		3
101	Rapid Discovery of Illuminating Peptides for Instant Detection of Opioids in Blood and Body Fluids. Molecules, 2019, 24, 1813.	3.8	3
102	Print-to-print: a facile multi-object micro-patterning technique. Biomedical Microdevices, 2013, 15, 233-240.	2.8	2
103	Flexible Electronics: Microflotronics: A Flexible, Transparent, Pressure-Sensitive Microfluidic Film (Adv. Funct. Mater. 39/2014). Advanced Functional Materials, 2014, 24, 6086-6086.	14.9	2
104	Stereomask Lithography for Multi-Protein Patterning. Methods in Cell Biology, 2014, 119, 175-192.	1.1	2
105	Twisting patterning: electrochemical deposition of stretchable spiral metallic conductors on elastic polymer threads. Journal of Materials Chemistry C, 2018, 6, 1215-1223.	5.5	2
106	Print-to-Print. Methods in Cell Biology, 2014, 119, 219-233.	1.1	1
107	Electrospun nanofabric based all-fabric iontronic pressure sensor. , 2017, , .		1
108	On the Sensory Analysis of Matter and Materials. Matter, 2019, 1, 13-16.	10.0	1

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109	Micropattern-assisted nanoassembly: Ordered nanocolloidal array on PEG microstructures. , 2009, , .		0
110	Interfacial Nanoadhesive: Universal Nanopatternable Interfacial Bonding (Adv. Mater. 46/2011). Advanced Materials, 2011, 23, 5550-5550.	21.0	0
111	Print-to-Print: A facile flexible multi-object patterning process using superhydrophobic films. , 2013, , .		0
112	Superhydrophobicity-Enabled Interfacial Microfluidics on Textile. Materials Research Society Symposia Proceedings, 2013, 1569, 115-120.	0.1	0
113	Universal Anisotropically Conductive Nano-adhesive of PDMS Oligomers. Materials Research Society Symposia Proceedings, 2013, 1553, 1.	0.1	0
114	Photopatternable and moisture-stable PEDOT:PSS/PEG hybrid thin-film for flexible and wearable humidity sensing. , 2017, , .		0
115	Electronic Skin: Imperceptible Epidermalâ€"Iontronic Interface for Wearable Sensing (Adv. Mater.) Tj ETQq1 1 0.784314 rgBT /Overlock	21.0	0
116	Interfacial Iontronic Sensing: First Decade of Interfacial Iontronic Sensing: From Droplet Sensors to Artificial Skins (Adv. Mater. 7/2021). Advanced Materials, 2021, 33, 2170050.	21.0	0
117	High-Throughput Experimentation Using Cell-Free Protein Systems. Methods in Molecular Biology, 2022, 2433, 121-134.	0.9	0
118	An Artificial Nano-Drainage Implant (ANDI) for Glaucoma Treatment. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2006, , .	0.5	0