Jian Chen

List of Publications by Year
in descending order

75 papers	916 citations	516710 16 h-index	526287 27 g-index
75 all docs	75 docs citations	75 times ranked	892 citing authors

#	Article	IF	Citations
1	Microfluidic Impedance Flow Cytometry Enabling High-Throughput Single-Cell Electrical Property Characterization. International Journal of Molecular Sciences, 2015, 16, 9804-9830.	4.1	125
2	Development of Droplet Microfluidics Enabling High-Throughput Single-Cell Analysis. Molecules, 2016, 21, 881.	3.8	82
3	A High-Q Resonant Pressure Microsensor with Through-Glass Electrical Interconnections Based on Wafer-Level MEMS Vacuum Packaging. Sensors, 2014, 14, 24244-24257.	3.8	45
4	A microfluidic flow cytometer enabling absolute quantification of single-cell intracellular proteins. Lab on A Chip, 2017, 17, 3129-3137.	6.0	41
5	A Resonant Pressure Microsensor Capable of Self-Temperature Compensation. Sensors, 2015, 15, 10048-10058.	3.8	37
6	Characterization of cytoplasmic viscosity of hundreds of single tumour cells based on micropipette aspiration. Royal Society Open Science, 2019, 6, 181707.	2.4	33
7	Electrical Property Characterization of Neural Stem Cells in Differentiation. PLoS ONE, 2016, 11, e0158044.	2.5	29
8	Constriction Channel Based Single-Cell Mechanical Property Characterization. Micromachines, 2015, 6, 1794-1804.	2.9	27
9	A Piezoresistive Pressure Sensor with Optimized Positions and Thickness of Piezoresistors. Micromachines, 2021, 12, 1095.	2.9	27
10	Advances of Single-Cell Protein Analysis. Cells, 2020, 9, 1271.	4.1	27
11	A Lateral Differential Resonant Pressure Microsensor Based on SOI-Glass Wafer-Level Vacuum Packaging. Sensors, 2015, 15, 24257-24268.	3.8	20
12	Development of microfluidic platform to high-throughput quantify single-cell intrinsic bioelectrical markers of tumor cell lines, subtypes and patient tumor cells. Sensors and Actuators B: Chemical, 2020, 317, 128231.	7.8	20
13	Simultaneous Characterization of Instantaneous Youngâ€™s Modulus and Specific Membrane Capacitance of Single Cells Using a Microfluidic System. Sensors, 2015, 15, 2763-2773.	3.8	19
14	A Resonant Pressure Microsensor Based on Double-Ended Tuning Fork and Electrostatic Excitation/Piezoresistive Detection. Sensors, 2018, 18, 2494.	3.8	19
15	A High-Sensitivity Resonant Differential Pressure Microsensor Based on Bulk Micromachining. IEEE Sensors Journal, 2021, 21, 8927-8934.	4.7	19
16	Crossing constriction channel-based microfluidic cytometry capable of electrically phenotyping large populations of single cells. Analyst, The, 2019, 144, 1008-1015.	3.5	17
17	A Resonant Pressure Microsensor with the Measurement Range of 1 MPa Based on Sensitivities Balanced Dual Resonators. Sensors, 2019, 19, 2272.	3.8	17
18	Membrane capacitance of thousands of single white blood cells. Journal of the Royal Society Interface, 2017, 14, 20170717.	3.4	14

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19	An Electrochemical, Low-Frequency Seismic Micro-Sensor Based on MEMS with a Force-Balanced Feedback System. Sensors, 2017, 17, 2103.	3.8	14
20	Classification of Cells with Membrane Staining and/or Fixation Based on Cellular Specific Membrane Capacitance and Cytoplasm Conductivity. Micromachines, 2015, 6, 163-171.	2.9	13
21	A Resonant Pressure Microsensor with a Wide Pressure Measurement Range. Micromachines, 2021, 12, 382.	2.9	12
22	A MEMS-Based Electrochemical Angular Accelerometer With a Force-Balanced Negative Feedback. IEEE Sensors Journal, 2021, 21, 15972-15978.	4.7	12
23	A Resonant Pressure Sensor Based upon Electrostatically Comb Driven and Piezoresistively Sensed Lateral Resonators. Micromachines, 2019, 10, 460.	2.9	11
24	A Temperature-Insensitive Resonant Pressure Micro Sensor Based on Silicon-on-Glass Vacuum Packaging. Sensors, 2019, 19, 3866.	3.8	11
25	Microfluidic Cytometry for Highâ€Throughput Characterization of Single Cell Cytoplasmic Viscosity Using Crossing Constriction Channels. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2020, 97, 630-637.	1.5	11
26	Developments of Conventional and Microfluidic Flow Cytometry Enabling High-Throughput Characterization of Single Cells. Biosensors, 2022, 12, 443.	4.7	11
27	A droplet-based microfluidic flow cytometry enabling absolute quantification of single-cell proteins leveraging constriction channel. Microfluidics and Nanofluidics, 2021, 25, 1.	2.2	10
28	Characterization of Single-Nucleus Electrical Properties by Microfluidic Constriction Channel. Micromachines, 2019, 10, 740.	2.9	9
29	A Flexible Sensing Unit Manufacturing Method of Electrochemical Seismic Sensor. Sensors, 2018, 18, 1165.	3.8	8
30	A Micromachined Resonant Low-Pressure Sensor With High Quality Factor. IEEE Sensors Journal, 2021, 21, 19840-19846.	4.7	8
31	Microelectromechanical System-Based Electrochemical Seismometers with Two Pairs of Electrodes Integrated on One Chip. Sensors, 2019, 19, 3953.	3.8	7
32	A Resonant Pressure Microsensor with Temperature Compensation Method Based on Differential Outputs and a Temperature Sensor. Micromachines, 2020, 11, 1022.	2.9	7
33	An Electrochemical Angular Micro-Accelerometer Based on Miniaturized Planar Electrodes Positioned in Parallel. IEEE Sensors Journal, 2021, 21, 21305-21313.	4.7	7
34	Inherent bioelectrical parameters of hundreds of thousands of single leukocytes based on impedance flow cytometry. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2022, 101, 630-638.	1.5	7
35	The Effects of Profile Errors of Microlens Surfaces on Laser Beam Homogenization. Micromachines, 2017, 8, 50.	2.9	6
36	Development of microfluidic platform capable of characterizing cytoplasmic viscosity, cytoplasmic conductivity and specific membrane capacitance of single cells. Microfluidics and Nanofluidics, 2020, 24, 1.	2.2	6

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37	A Resonant Differential Pressure Microsensor With Temperature and Static Pressure Compensations. IEEE Sensors Journal, 2021, 21, 19881-19888.	4.7	6
38	The MEMS-Based Electrochemical Seismic Sensor With Integrated Sensitive Electrodes by Adopting Anodic Bonding Technology. IEEE Sensors Journal, 2021, 21, 19833-19839.	4.7	6
39	Advance of microfluidic constriction channel system of measuring <scp>singleâ€cell</scp> cortical tension/specific capacitance of membrane and conductivity of cytoplasm. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2022, 101, 434-447.	1.5	6
40	A resonant high-pressure sensor based on dual cavities. Journal of Micromechanics and Microengineering, 2021, 31, 124002.	2.6	6
41	A Resonant Differential Pressure Microsensor With Stress Isolation and Au-Au Bonding in Packaging. IEEE Transactions on Electron Devices, 2022, 69, 2023-2029.	3.0	6
42	Absolute Copy Numbers of Î²-Actin Proteins Collected from 10,000 Single Cells. Micromachines, 2018, 9, 254.	2.9	5
43	A Monolithic Electrochemical Micro Seismic Sensor Capable of Monitoring Three-Dimensional Vibrations. Sensors, 2018, 18, 1047.	3.8	5
44	Dopamine and Striatal Neuron Firing Respond to Frequency-Dependent DBS Detected by Microelectrode Arrays in the Rat Model of Parkinsonâ€™s Disease. Biosensors, 2020, 10, 136.	4.7	5
45	MEMS-Based Electrochemical Seismometer Relying on a CAC Integrated Three-Electrode Structure. Sensors, 2021, 21, 809.	3.8	5
46	Classification of tumor subtypes leveraging <scp>constrictionâ€channel</scp> based impedance flow cytometry and optical imaging. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2021, 99, 1114-1122.	1.5	5
47	A Micromachined Resonant Micro-Pressure Sensor. IEEE Sensors Journal, 2021, 21, 19789-19796.	4.7	5
48	Development of droplet microfluidics capable of quantitative estimation of single-cell multiplex proteins. Journal of Micromechanics and Microengineering, 2022, 32, 024002.	2.6	5
49	Inherent singleâ€cell bioelectrical parameters of thousands of neutrophils, eosinophils and basophils derived from impedance flow cytometry. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2022, 101, 639-647.	1.5	5
50	The Instrumentation of a Microfluidic Analyzer Enabling the Characterization of the Specific Membrane Capacitance, Cytoplasm Conductivity, and Instantaneous Youngâ€™s Modulus of Single Cells. International Journal of Molecular Sciences, 2017, 18, 1158.	4.1	4
51	Generation of Color Images by Utilizing a Single Composite Diffractive Optical Element. Micromachines, 2018, 9, 508.	2.9	4
52	Quantification of Single-Cell Cortical Tension Using Multiple Constriction Channels. IEEE Sensors Journal, 2021, 21, 7260-7267.	4.7	4
53	Temperature Compensation of the MEMS-Based Electrochemical Seismic Sensors. Micromachines, 2021, 12, 387.	2.9	4
54	MEMS-Based Electrochemical Seismometer with a Sensing Unit Integrating Four Electrodes. Micromachines, 2021, 12, 699.	2.9	4

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55	MEMS-Based Integrated Triaxial Electrochemical Seismometer. Micromachines, 2021, 12, 1156.	2.9	3
56	A Resonant High-Pressure Sensor Based on Integrated Resonator-Diaphragm Structure. IEEE Sensors Journal, 2022, 22, 3920-3927.	4.7	3
57	Development of microfluidic flow cytometry capable of characterization of single-cell intrinsic structural and electrical parameters. Journal of Micromechanics and Microengineering, 2022, 32, 035007.	2.6	3
58	A Low-Temperature-Sensitivity Resonant Pressure Microsensor Based on Eutectic Bonding. IEEE Sensors Journal, 2022, 22, 9321-9328.	4.7	3
59	Development of Microfluidic System Enabling High-Throughput Characterization of Multiple Biophysical Parameters of Single Cells. IEEE Transactions on Electron Devices, 2022, 69, 2015-2022.	3.0	3
60	An Electrostatic Comb Excitation Resonant Pressure Sensor for High Pressure Applications. IEEE Sensors Journal, 2022, 22, 15759-15768.	4.7	3
61	Microfluidic Analyzer Enabling Quantitative Measurements of Specific Intracellular Proteins at the Single-Cell Level. Micromachines, 2018, 9, 588.	2.9	2
62	Resonant Pressure Micro Sensors Based on Dual Double Ended Tuning Fork Resonators. Micromachines, 2019, 10, 560.	2.9	2
63	A MEMS Electrochemical Angular Accelerometer Leveraging Silicon-Based Three-Electrode Structure. Micromachines, 2022, 13, 186.	2.9	2
64	Modeling of the Electrochemical Motion Sensor Conversion Factor at High Frequencies. Micromachines, 2022, 13, 153.	2.9	2
65	Microfluidic Quantitative Flow Cytometer With Light Modulation. IEEE Sensors Journal, 2022, 22, 3009-3016.	4.7	2
66	A Resonant Low-Pressure Microsensor With Low Temperature Disturbance. IEEE Sensors Journal, 2022, 22, 10404-10410.	4.7	2
67	A new electrochemical angular microaccelerometer with integrated sensitive electrodes perpendicular to flow channels. Microsystems and Nanoengineering, 2022, 8, .	7.0	2
68	A Double-Ended Tuning Fork Based Resonant Pressure Micro-Sensor Relying on Electrostatic Excitation and Piezoresistive Detection. Proceedings (mdpi), 2018, 2, .	0.2	1
69	An Analytical Method for Modelling Pull-In Effect during Anodic Bonding. Proceedings (mdpi), 2018, 2, 969.	0.2	1
70	Extract of the Blood Circulation-Promoting Recipe-84 Can Protect Rat Retinas by Inhibiting the Î²-Catenin Signaling Pathway. International Journal of Molecular Sciences, 2018, 19, 2712.	4.1	1
71	Reduction of Temperature Sensitivity for Resonant Micro-Pressure Sensor Using Glass-Silicon Coupling Wafer Packaging. IEEE Sensors Journal, 2022, 22, 6410-6417.	4.7	1
72	Finite element simulation of a viscoelastic cell entering a cylindrical channel: Effects of frictional contact. Mechanics of Materials, 2022, 167, 104263.	3.2	1

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73	A Microfluidic Platform for Characterizing Single-Cell Intrinsic Bioelectrical Properties With Large Sample Size. IEEE Transactions on Electron Devices, 2022, 69, 5177-5184.	3.0	1
74	A MEMS-Based Co-Oscillating Electrochemical Vector Hydrophone. Micromachines, 2022, 13, 143.	2.9	0
75	A MEMS Electrochemical Seismometer Based on the Integrated Structure of Centrosymmetric Four Electrodes. Micromachines, 2022, 13, 354.	2.9	0