

Chih-Ting Lin

List of Publications by Year in descending order

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111
papers

1,524
citations

361413
20
h-index

345221
36
g-index

112
all docs

112
docs citations

112
times ranked

2124
citing authors

#	ARTICLE	IF	CITATIONS
1	Review of Field-Effect Transistor Biosensing: Devices and Clinical Applications. ECS Journal of Solid State Science and Technology, 2018, 7, Q3196-Q3207.	1.8	201
2	PDMS-based opto-fluidic micro flow cytometer with two-color, multi-angle fluorescence detection capability using PIN photodiodes. Sensors and Actuators B: Chemical, 2004, 98, 356-367.	7.8	176
3	A Self-Powered CMOS Reconfigurable Multi-Sensor SoC for Biomedical Applications. IEEE Journal of Solid-State Circuits, 2014, 49, 851-866.	5.4	108
4	Self-Contained, Biomolecular Motor-Driven Protein Sorting and Concentrating in an Ultrasensitive Microfluidic Chip. Nano Letters, 2008, 8, 1041-1046.	9.1	104
5	Review of Integrated Optical Biosensors for Point-of-Care Applications. Biosensors, 2020, 10, 209.	4.7	88
6	Efficient Designs for Powering Microscale Devices with Nanoscale Biomolecular Motors. Small, 2006, 2, 281-287.	10.0	52
7	Improving sensitivity of a miniaturized label-free electrochemical biosensor using zigzag electrodes. Biosensors and Bioelectronics, 2018, 103, 130-137.	10.1	49
8	A High Performance Doppler Interferometer for Advanced Optical Storage Systems. Japanese Journal of Applied Physics, 1999, 38, 1730-1741.	1.5	47
9	A CMOS wireless biomolecular sensing system-on-chip based on polysilicon nanowire technology. Lab on A Chip, 2013, 13, 4451.	6.0	38
10	A microfluidic device integrating dual CMOS polysilicon nanowire sensors for on-chip whole blood processing and simultaneous detection of multiple analytes. Lab on A Chip, 2016, 16, 3105-3113.	6.0	36
11	Statins, HMG-CoA Reductase Inhibitors, Improve Neovascularization by Increasing the Expression Density of CXCR4 in Endothelial Progenitor Cells. PLoS ONE, 2015, 10, e0136405.	2.5	33
12	A CMOS Cantilever-Based Label-Free DNA SoC With Improved Sensitivity for Hepatitis B Virus Detection. IEEE Transactions on Biomedical Circuits and Systems, 2013, 7, 820-831.	4.0	30
13	A fully integrated wireless CMOS microcantilever lab chip for detection of DNA from Hepatitis B virus (HBV). Sensors and Actuators B: Chemical, 2013, 181, 867-873.	7.8	26
14	An enhancement of high-k/oxide stacked dielectric structure for silicon-based multi-nanowire biosensor in cardiac troponin I detection. Sensors and Actuators B: Chemical, 2015, 218, 303-309.	7.8	25
15	Enhancement of carrier mobility in all-inkjet-printed organic thin-film transistors using a blend of poly(3-hexylthiophene) and carbon nanoparticles. Thin Solid Films, 2011, 519, 8008-8012.	1.8	24
16	An incremental double-layer capacitance of a planar nano gap and its application in cardiac-troponin T detection. Biosensors and Bioelectronics, 2016, 79, 636-643.	10.1	23
17	Statistical properties of agent-based models in markets with continuous double auction mechanism. Physica A: Statistical Mechanics and Its Applications, 2010, 389, 1699-1707.	2.6	21
18	A low sample volume particle separation device with electrokinetic pumping based on circular travelling-wave electroosmosis. Lab on A Chip, 2013, 13, 3082.	6.0	21

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19	Electrochemical biosensor with electrokinetics-assisted molecular trapping for enhancing C-reactive protein detection. <i>Biosensors and Bioelectronics</i> , 2022, 210, 114338.	10.1	21
20	A Portable System to Monitor Saliva Conductivity for Dehydration Diagnosis and Kidney Healthcare. <i>Scientific Reports</i> , 2019, 9, 14771.	3.3	20
21	A Room-Temperature Operation Formaldehyde Sensing Material Printed Using Blends of Reduced Graphene Oxide and Poly(methyl methacrylate). <i>Sensors</i> , 2015, 15, 28842-28853.	3.8	18
22	High-Precision Ultrasonic Ranging System Platform Based on Peak-Detected Self-Interference Technique. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2011, 60, 3775-3780.	4.7	17
23	A Low-Power CMOS Microfluidic Pump Based on Travelling-Wave Electroosmosis for Diluted Serum Pumping. <i>Scientific Reports</i> , 2019, 9, 14794.	3.3	17
24	Inkjet-Printed Organic Field-Effect Transistor by Using Composite Semiconductor Material of Carbon Nanoparticles and Poly(3-Hexylthiophene). <i>Journal of Nanotechnology</i> , 2011, 2011, 1-7.	3.4	14
25	A Machine-Learning Assisted Sensor for Chemo-Physical Dual Sensing Based on Ion-Sensitive Field-Effect Transistor Architecture. <i>IEEE Sensors Journal</i> , 2019, 19, 9983-9990.	4.7	14
26	A Printable Humidity Sensing Material Based on Conductive Polymer and Nanoparticles Composites. <i>Japanese Journal of Applied Physics</i> , 2013, 52, 05DA08.	1.5	13
27	A low-damage plasma surface modification method of stacked graphene bilayers for configurable wettability and electrical properties. <i>Nanotechnology</i> , 2019, 30, 245709.	2.6	13
28	Photoconductive Piezoelectric Polymer Made From a Composite of P(VDF-TrFE) and TiOPc. <i>Ferroelectrics</i> , 2013, 446, 9-17.	0.6	11
29	Effects of π -electron in humidity sensing of artificially stacked graphene bilayers modified with carboxyl and hydroxyl groups. <i>Sensors and Actuators B: Chemical</i> , 2019, 301, 127020.	7.8	10
30	A Fully Integrated Humidity Sensor System-on-Chip Fabricated by Micro-Stamping Technology. <i>Sensors</i> , 2012, 12, 11592-11600.	3.8	9
31	A fully integrated hepatitis B virus DNA detection SoC based on monolithic polysilicon nanowire CMOS process. , 2012, , .		9
32	A frequency-control particle separation device based on resultant effects of electroosmosis and dielectrophoresis. <i>Applied Physics Letters</i> , 2016, 109, 053701.	3.3	9
33	Pre-Clinical Tests of an Integrated CMOS Biomolecular Sensor for Cardiac Diseases Diagnosis. <i>Sensors</i> , 2017, 17, 2733.	3.8	9
34	Review“Advancements of Nanoscale Structures and Materials in Impedimetric Biosensing Technologies. <i>ECS Journal of Solid State Science and Technology</i> , 2020, 9, 115027.	1.8	9
35	Emerging Electrical Biosensors for Detecting Pathogens and Antimicrobial Susceptibility Tests. <i>Current Organic Chemistry</i> , 2014, 18, 165-172.	1.6	9
36	Low-Power and High-Sensitivity Humidity Sensor Using Fe-Al-Polyaniline Blends. <i>IEEE Sensors Journal</i> , 2010, 10, 1142-1146.	4.7	8

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37	A Low-Power Integrated Humidity CMOS Sensor by Printing-on-Chip Technology. <i>Sensors</i> , 2014, 14, 9247-9255.	3.8	8
38	Sensitivity improvement of a miniaturized label-free electrochemical impedance biosensor by electrode edge effect. <i>Journal of Micro/ Nanolithography, MEMS, and MOEMS</i> , 2014, 13, 033019.	0.9	8
39	A Self-Sustained Wireless Multi-Sensor Platform Integrated with Printable Organic Sensors for Indoor Environmental Monitoring. <i>Sensors</i> , 2017, 17, 715.	3.8	8
40	Cloud-Based Artificial Intelligence System for Large-Scale Arrhythmia Screening. <i>Computer</i> , 2019, 52, 40-51.	1.1	8
41	Heart Rhythm Complexity Predicts Long-Term Cardiovascular Outcomes in Peritoneal Dialysis Patients: A Prospective Cohort Study. <i>Journal of the American Heart Association</i> , 2020, 9, e013036.	3.7	8
42	Sensing Characteristic Enhancement of CMOS-Based ISFETs With Three-Dimensional Extended- Gate Architecture. <i>IEEE Sensors Journal</i> , 2021, 21, 8831-8838.	4.7	8
43	An implementation of light-weight compression algorithm for wireless sensor network technology in structure health monitoring. , 2014, , .		7
44	A Smart CMOS Assay SoC for Rapid Blood Screening Test of Risk Prediction. <i>IEEE Transactions on Biomedical Circuits and Systems</i> , 2016, 9, 1-1.	4.0	7
45	Effects of pulsed-radiofrequency neuromodulation on the rat with overactive bladder. <i>Neurourology and Urodynamics</i> , 2017, 36, 1734-1741.	1.5	7
46	Predicting the stochastic guiding of kinesin-driven microtubules in microfabricated tracks: A statistical-mechanics-based modeling approach. <i>Physical Review E</i> , 2010, 81, 011919.	2.1	6
47	The association between heart rhythm complexity and the severity of abdominal aorta calcification in peritoneal dialysis patients. <i>Scientific Reports</i> , 2018, 8, 15627.	3.3	6
48	New Tools for Structural Testing: Piezoelectric Impact Hammers and Acceleration Rate Sensors. <i>Journal of Guidance, Control, and Dynamics</i> , 1998, 21, 692-697.	2.8	5
49	Towards transparent electronics: fabrication of an organic transistor with a wide bandgap polymer. <i>Journal of Materials Chemistry</i> , 2012, 22, 57-59.	6.7	5
50	GPS-Based Real-Time Guidance Information System for Marine Pier Construction. <i>Journal of Surveying Engineering</i> , - ASCE, 2013, 139, 84-94.	1.7	5
51	21.6 A smart CMOS assay SoC for rapid blood screening test of risk prediction. , 2015, , .		5
52	An in-situ filtering pump for particle-sample filtration based on low-voltage electrokinetic mechanism. <i>Sensors and Actuators B: Chemical</i> , 2017, 238, 809-816.	7.8	5
53	Web-based real time bridge scour monitoring system for disaster management. <i>Baltic Journal of Road and Bridge Engineering</i> , 2014, 9, 17-25.	0.8	5
54	Development of a photoconductive piezoelectronic material from composite of P(VDF-TrFE) and TiOPc. , 2012, , .		4

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55	Adjustable threshold-voltage in all-inkjet-printed organic thin film transistor using double-layer dielectric structures. Thin Solid Films, 2013, 548, 576-580.	1.8	4
56	A CMOS Based Polysilicon Nanowire Biosensor Platform for Different Biological Targets. Procedia Engineering, 2014, 87, 340-343.	1.2	4
57	A printable conductive polymer CO2 sensor with high selectivity to humidity. , 2017, , .		4
58	A pH/Light Dual-Modal Sensing ISFET Assisted by Artificial Neural Networks. ECS Transactions, 2019, 89, 31-37.	0.5	4
59	A Portable Biodevice to Monitor Salivary Conductivity for the Rapid Assessment of Fluid Status. Journal of Personalized Medicine, 2021, 11, 577.	2.5	4
60	Detection of Polystyrene Beads Concentration Using an SOI-MEMS Differential Rotational Thermal Piezoresistive Resonator for Future Label-Free Biosensing Applications. IEEE Sensors Journal, 2021, 21, 21400-21409.	4.7	4
61	A statistical nanomechanism of biomolecular patterning actuated by surface potential. Journal of Applied Physics, 2011, 109, .	2.5	3
62	Silicon-based Multi-nanowire Biosensor with High-k Dielectric and Stacked Oxide Sensing Membrane for Cardiac Troponin I Detection. Procedia Engineering, 2014, 87, 648-651.	1.2	3
63	A capacitive immunosensor using on-chip electrolytic pumping and magnetic washing techniques for point-of-care applications. , 2014, , .		3
64	Data on a new sensitivity-improved miniaturized label-free electrochemical biosensor. Data in Brief, 2018, 17, 1288-1294.	1.0	3
65	A Low-Power PEDOT: PSS/EB-PANI for CO ₂ Sensing Material Integrated With a Self-Powered Sensing Platform. IEEE Sensors Journal, 2020, 20, 55-61.	4.7	3
66	Surface-Plasmon-Resonance Based Narrow-Bandwidth Infrared Carbon Monoxide Detection System. IEEE Sensors Journal, 2022, 22, 9803-9810.	4.7	3
67	Review-Hysteresis in Carbon Nano-Structure Field Effect Transistor. Micromachines, 2022, 13, 509.	2.9	3
68	Quality assessment for LiDAR point cloud registration using in-situ conjugate features. , 2011, , .		2
69	Percolation of Carbon Nanoparticles in Poly(3-Hexylthiophene) Enhancing Carrier Mobility in Organic Thin Film Transistors. Advances in Materials Science and Engineering, 2014, 2014, 1-10.	1.8	2
70	Self-Sustain Wireless Sensor Module. , 2014, , .		2
71	A photo-sensitive piezoelectric composite material of poly(vinylidene fluoride-trifluoroethylene) and titanium oxide phthalocyanine. Materials Chemistry and Physics, 2015, 149-150, 254-260.	4.0	2
72	Glycated Hemoglobin Detection in Clinical Blood Samples by Using CMOS Poly-silicon Sub-micron Wire Biosensor. Procedia Engineering, 2016, 168, 121-124.	1.2	2

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73	Use Support Vector Machine (SVM) to estimate gas concentration in mixture condition. , 2017, , .		2
74	CMOS-based biomolecular diagnosis platform. , 2017, , .		2
75	Temperature Effect of Low-Damage Plasma for Nitrogen-Modification of Graphene. ECS Journal of Solid State Science and Technology, 2020, 9, 121007.	1.8	2
76	CMOS ISFETs With 3D-Truncated Sensing Structure Resistant to Scaling Attenuation and Trapped Charge-Induced Offset. IEEE Sensors Journal, 2021, 21, 27282-27289.	4.7	2
77	The configurable-biomolecular nano pattern controlled by surface potential. Microelectronic Engineering, 2011, 88, 1785-1788.	2.4	1
78	An inkjet-printed humidity sensor based on SiO ₂ nano particle blended PEDOT:PSS films. , 2012, , .		1
79	On-chip biological patterning controlled by electrical potential. Microelectronic Engineering, 2012, 98, 711-714.	2.4	1
80	Sub-fM DNA sensitivity by self-aligned maskless thin-film transistor-based SoC bioelectronics. , 2012, , .		1
81	Low-cost and ultra-sensitive poly-Si nanowire biosensor for Hepatitis B Virus (HBV) DNA detection. , 2012, , .		1
82	Isothermal real-time polymerase chain reaction detection of Herpes Simplex Virus Type 1 on a light-actuated digital microfluidics platform. , 2013, , .		1
83	On the sensitivity improvement of a miniaturized label-free electrochemical impedance biosensor. , 2014, , .		1
84	A sub-micron CMOS-based ISFET array for biomolecular sensing. , 2016, , .		1
85	Effects of silicon Interface and frequency dependence in solution-processed high-K poly(vinylidene fluoride) thin films. ECS Transactions, 2017, 628, 75-80.	1.8	1
86	An in-Situ Impedance-Based Whole Blood Anticoagulation Diagnosis Technology. ECS Transactions, 2019, 89, 73-80.	0.5	1
87	An Ion-Sensitive Field-Effect Transistor with Three-Dimensional Extended-Gate Architecture. ECS Transactions, 2019, 89, 81-86.	0.5	1
88	Field-effect pump: liquid dielectrophoresis along a virtual microchannel with source-gate-drain electric fields. Lab on A Chip, 2021, 21, 2372-2382.	6.0	1
89	An Interface-Induced Dielectric Properties Degradation in Heterogeneous Stacked Device With P(VDF-TrFE)-Based Ferroelectric Polymers. IEEE Transactions on Electron Devices, 2021, 68, 739-745.	3.0	1
90	Poly-Silicon Nanowire FET Chemical Sensor. , 2010, , .		1

#	ARTICLE	IF	CITATIONS
91	Polysilicon nanowire chemical sensor based on CMOS standard process. , 2008, , .		0
92	Nanomechanics of Biomolecular Motor Proteins in Micromachined Structures. , 2010, , .		0
93	The heterogeneous sensor system on chip. , 2012, , .		0
94	A sensor-merged oscillator-based readout circuit for pizeo-resistive sensing applications. , 2012, , .		0
95	Development of a Photoresponsive and Electrostrictive Material from P(VDF-TrFE-CFE) and TiOPc Composite. Materials Research Society Symposia Proceedings, 2014, 1659, 69-74.	0.1	0
96	A silicon nanowire-based bio-sensing system with digitized outputs for acute myocardial infraction diagnosis. , 2014, , .		0
97	A study of an energy harvesting device based on photosystem-II protein complex. , 2014, , .		0
98	A Degradation Preventing Method for the Organic Material in Gas Sensing Application by Using CMOS Submicron Wire Sensor. Procedia Engineering, 2016, 168, 1743-1746.	1.2	0
99	Investigation of frequency/thickness dependent configurable dielectric properties on P(VDF-TrFE-CTFE)-MIS structures. , 2016, , .		0
100	A nano-gap biosensor using nano-patterned conductive molecule for cTnT detection. , 2016, , .		0
101	Impedance spectroscopy for microfluidic particle-analyzing device with spatial-coplanar electrode design. , 2017, , .		0
102	Ionic concentration sensing via nitrogen modified graphene through low-damage plasma treatment. , 2019, , .		0
103	High Efficient Synchronization-On-Demand Protocol of IEEE802.15.4 Wireless Sesnor Network for Construction Monitoring. , 2011, , .		0
104	Implant intelligent gene to automation: An interview with ITRI MSL Deputy General Director. International Journal of Automation and Smart Technology, 2011, 1, 13-17.	0.4	0
105	High Efficient Synchronization-on-demand Protocol of IEEE 802.15.4 Wireless Sensor Network for Construction Monitoring. International Journal of Automation and Smart Technology, 2012, 2, 103-109.	0.4	0
106	An Ion-Sensitive Field-Effect Transistor with Three-Dimensional Extended-Gate Architecture. ECS Meeting Abstracts, 2019, , .	0.0	0
107	A pH/Light Dual-Modal Sensing Isfet Assisted By Artificial Neural Networks. ECS Meeting Abstracts, 2019, , .	0.0	0
108	An in-Situ Impedance-Based Whole Blood Anticoagulation Diagnosis Technology. ECS Meeting Abstracts, 2019, , .	0.0	0

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109	Preface“JSS Focus Issue on Solid-State Materials and Devices for Biological and Medical Applications. ECS Journal of Solid State Science and Technology, 2020, 9, 110001.	1.8	0
110	Effect of Electrons Trapping/De-Trapping at P(VDF-TrFE)/SiO ₂ Interface in Metal/Ferroelectric/Oxide/Semiconductor Structure With Ultra-Thin SiO ₂ By Anodization. IEEE Nanotechnology Magazine, 2021, 20, 928-932.	2.0	0
111	Electrical Measurements to Detect Liquid Concentration. IEEE Transactions on Semiconductor Manufacturing, 2022, 35, 11-15.	1.7	0