

# Chih-Ting Lin

## List of Publications by Year in descending order

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Version: 2024-02-01

111  
papers

1,524  
citations

361296

20  
h-index

345118

36  
g-index

112  
all docs

112  
docs citations

112  
times ranked

2124  
citing authors

#	ARTICLE	IF	CITATIONS
1	Electrical Measurements to Detect Liquid Concentration. IEEE Transactions on Semiconductor Manufacturing, 2022, 35, 11-15.	1.4	0
2	Surface-Plasmon-Resonance Based Narrow-Bandwidth Infrared Carbon Monoxide Detection System. IEEE Sensors Journal, 2022, 22, 9803-9810.	2.4	3
3	Review-Hysteresis in Carbon Nano-Structure Field Effect Transistor. Micromachines, 2022, 13, 509.	1.4	3
4	Electrochemical biosensor with electrokinetics-assisted molecular trapping for enhancing C-reactive protein detection. Biosensors and Bioelectronics, 2022, 210, 114338.	5.3	21
5	Field-effect pump: liquid dielectrophoresis along a virtual microchannel with source-gate-drain electric fields. Lab on A Chip, 2021, 21, 2372-2382.	3.1	1
6	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.	1.6	1
7	Sensing Characteristic Enhancement of CMOS-Based ISFETs With Three-Dimensional Extended- Gate Architecture. IEEE Sensors Journal, 2021, 21, 8831-8838.	2.4	8
8	A Portable Biodevice to Monitor Salivary Conductivity for the Rapid Assessment of Fluid Status. Journal of Personalized Medicine, 2021, 11, 577.	1.1	4
9	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.	2.4	4
10	Effect of Electrons Trapping/De-Trapping at P(VDF-TrFE)/SiO <sub>2</sub> Interface in Metal/Ferroelectric/Oxide/Semiconductor Structure With Ultra-Thin SiO <sub>2</sub> By Anodization. IEEE Nanotechnology Magazine, 2021, 20, 928-932.	1.1	0
11	CMOS ISFETs With 3D-Truncated Sensing Structure Resistant to Scaling Attenuation and Trapped Charge-Induced Offset. IEEE Sensors Journal, 2021, 21, 27282-27289.	2.4	2
12	Heart Rhythm Complexity Predicts Long-Term Cardiovascular Outcomes in Peritoneal Dialysis Patients: A Prospective Cohort Study. Journal of the American Heart Association, 2020, 9, e013036.	1.6	8
13	A Low-Power PEDOT: PSS/EB-PANI for CO <sub>2</sub> Sensing Material Integrated With a Self-Powered Sensing Platform. IEEE Sensors Journal, 2020, 20, 55-61.	2.4	3
14	Review of Integrated Optical Biosensors for Point-of-Care Applications. Biosensors, 2020, 10, 209.	2.3	88
15	Review—Advancements of Nanoscale Structures and Materials in Impedimetric Biosensing Technologies. ECS Journal of Solid State Science and Technology, 2020, 9, 115027.	0.9	9
16	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.	0.9	0
17	Temperature Effect of Low-Damage Plasma for Nitrogen-Modification of Graphene. ECS Journal of Solid State Science and Technology, 2020, 9, 121007.	0.9	2
18	A Low-Power CMOS Microfluidic Pump Based on Travelling-Wave Electroosmosis for Diluted Serum Pumping. Scientific Reports, 2019, 9, 14794.	1.6	17

#	ARTICLE	IF	CITATIONS
19	Cloud-Based Artificial Intelligence System for Large-Scale Arrhythmia Screening. Computer, 2019, 52, 40-51.	1.2	8
20	A Portable System to Monitor Saliva Conductivity for Dehydration Diagnosis and Kidney Healthcare. Scientific Reports, 2019, 9, 14771.	1.6	20
21	Effects of ĩ€-electron in humidity sensing of artificially stacked graphene bilayers modified with carboxyl and hydroxyl groups. Sensors and Actuators B: Chemical, 2019, 301, 127020.	4.0	10
22	A Machine-Learning Assisted Sensor for Chemo-Physical Dual Sensing Based on Ion-Sensitive Field-Effect Transistor Architecture. IEEE Sensors Journal, 2019, 19, 9983-9990.	2.4	14
23	An in-Situ Impedance-Based Whole Blood Anticoagulation Diagnosis Technology. ECS Transactions, 2019, 89, 73-80.	0.3	1
24	An Ion-Sensitive Field-Effect Transistor with Three-Dimensional Extended-Gate Architecture. ECS Transactions, 2019, 89, 81-86.	0.3	1
25	A pH/Light Dual-Modal Sensing ISFET Assisted by Artificial Neural Networks. ECS Transactions, 2019, 89, 31-37.	0.3	4
26	A low-damage plasma surface modification method of stacked graphene bilayers for configurable wettability and electrical properties. Nanotechnology, 2019, 30, 245709.	1.3	13
27	Ionic concentration sensing via nitrogen modified graphene through low-damage plasma treatment. , 2019, , .		0
28	An Ion-Sensitive Field-Effect Transistor with Three-Dimensional Extended-Gate Architecture. ECS Meeting Abstracts, 2019, , .	0.0	0
29	A pH/Light Dual-Modal Sensing Isfet Assisted By Artificial Neural Networks. ECS Meeting Abstracts, 2019, , .	0.0	0
30	An in-Situ Impedance-Based Whole Blood Anticoagulation Diagnosis Technology. ECS Meeting Abstracts, 2019, , .	0.0	0
31	Improving sensitivity of a miniaturized label-free electrochemical biosensor using zigzag electrodes. Biosensors and Bioelectronics, 2018, 103, 130-137.	5.3	49
32	The association between heart rhythm complexity and the severity of abdominal aorta calcification in peritoneal dialysis patients. Scientific Reports, 2018, 8, 15627.	1.6	6
33	Data on a new sensitivity-improved miniaturized label-free electrochemical biosensor. Data in Brief, 2018, 17, 1288-1294.	0.5	3
34	Reviewâ€”Field-Effect Transistor Biosensing: Devices and Clinical Applications. ECS Journal of Solid State Science and Technology, 2018, 7, Q3196-Q3207.	0.9	201
35	Effects of pulsed-radiofrequency neuromodulation on the rat with overactive bladder. Neurourology and Urodynamics, 2017, 36, 1734-1741.	0.8	7
36	Effects of silicon Interface and frequency dependence in solution-processed high-K poly(vinylidene) Tj ETQqO O O rgBT /Overlock 10 Tf 50 2017, 628, 75-80.	0.8	1

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37	Use Support Vector Machine (SVM) to estimate gas concentration in mixture condition. , 2017, , .		2
38	A printable conductive polymer CO2 sensor with high selectivity to humidity. , 2017, , .		4
39	An in-situ filtering pump for particle-sample filtration based on low-voltage electrokinetic mechanism. Sensors and Actuators B: Chemical, 2017, 238, 809-816.	4.0	5
40	Impedance spectroscopy for microfluidic particle-analyzing device with spatial-coplanar electrode design. , 2017, , .		0
41	CMOS-based biomolecular diagnosis platform. , 2017, , .		2
42	A Self-Sustained Wireless Multi-Sensor Platform Integrated with Printable Organic Sensors for Indoor Environmental Monitoring. Sensors, 2017, 17, 715.	2.1	8
43	Pre-Clinical Tests of an Integrated CMOS Biomolecular Sensor for Cardiac Diseases Diagnosis. Sensors, 2017, 17, 2733.	2.1	9
44	A sub-micron CMOS-based ISFET array for biomolecular sensing. , 2016, , .		1
45	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
46	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
47	A frequency-control particle separation device based on resultant effects of electroosmosis and dielectrophoresis. Applied Physics Letters, 2016, 109, 053701.	1.5	9
48	Investigation of frequency/thickness dependent configurable dielectric properties on P(VDF-TrFE-CTFE)-MIS structures. , 2016, , .		0
49	A nano-gap biosensor using nano-patterned conductive molecule for cTnT detection. , 2016, , .		0
50	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.	5.3	23
51	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.	3.1	36
52	A Smart CMOS Assay SoC for Rapid Blood Screening Test of Risk Prediction. IEEE Transactions on Biomedical Circuits and Systems, 2016, 9, 1-1.	2.7	7
53	A Room-Temperature Operation Formaldehyde Sensing Material Printed Using Blends of Reduced Graphene Oxide and Poly(methyl methacrylate). Sensors, 2015, 15, 28842-28853.	2.1	18
54	Statins, HMG-CoA Reductase Inhibitors, Improve Neovascularization by Increasing the Expression Density of CXCR4 in Endothelial Progenitor Cells. PLoS ONE, 2015, 10, e0136405.	1.1	33

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55	An enhancement of high-k/oxide stacked dielectric structure for silicon-based multi-nanowire biosensor in cardiac troponin I detection. <i>Sensors and Actuators B: Chemical</i> , 2015, 218, 303-309.	4.0	25
56	21.6 A smart CMOS assay SoC for rapid blood screening test of risk prediction. , 2015, , .		5
57	A photo-sensitive piezoelectric composite material of poly(vinylidene fluoride-trifluoroethylene) and titanium oxide phthalocyanine. <i>Materials Chemistry and Physics</i> , 2015, 149-150, 254-260.	2.0	2
58	A Low-Power Integrated Humidity CMOS Sensor by Printing-on-Chip Technology. <i>Sensors</i> , 2014, 14, 9247-9255.	2.1	8
59	Percolation of Carbon Nanoparticles in Poly(3-Hexylthiophene) Enhancing Carrier Mobility in Organic Thin Film Transistors. <i>Advances in Materials Science and Engineering</i> , 2014, 2014, 1-10.	1.0	2
60	Self-Sustain Wireless Sensor Module. , 2014, , .		2
61	A CMOS Based Polysilicon Nanowire Biosensor Platform for Different Biological Targets. <i>Procedia Engineering</i> , 2014, 87, 340-343.	1.2	4
62	Silicon-based Multi-nanowire Biosensor with High-k Dielectric and Stacked Oxide Sensing Membrane for Cardiac Troponin I Detection. <i>Procedia Engineering</i> , 2014, 87, 648-651.	1.2	3
63	On the sensitivity improvement of a miniaturized label-free electrochemical impedance biosensor. , 2014, , .		1
64	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.	1.0	8
65	Development of a Photoresponsive and Electrostrictive Material from P(VDF-TrFE-CFE) and TiOPc Composite. <i>Materials Research Society Symposia Proceedings</i> , 2014, 1659, 69-74.	0.1	0
66	A Self-Powered CMOS Reconfigurable Multi-Sensor SoC for Biomedical Applications. <i>IEEE Journal of Solid-State Circuits</i> , 2014, 49, 851-866.	3.5	108
67	A silicon nanowire-based bio-sensing system with digitized outputs for acute myocardial infraction diagnosis. , 2014, , .		0
68	A capacitive immunosensor using on-chip electrolytic pumping and magnetic washing techniques for point-of-care applications. , 2014, , .		3
69	A study of an energy harvesting device based on photosystem-II protein complex. , 2014, , .		0
70	An implementation of light-weight compression algorithm for wireless sensor network technology in structure health monitoring. , 2014, , .		7
71	Emerging Electrical Biosensors for Detecting Pathogens and Antimicrobial Susceptibility Tests. <i>Current Organic Chemistry</i> , 2014, 18, 165-172.	0.9	9
72	Web-based real time bridge scour monitoring system for disaster management. <i>Baltic Journal of Road and Bridge Engineering</i> , 2014, 9, 17-25.	0.4	5

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73	A low sample volume particle separation device with electrokinetic pumping based on circular travelling-wave electroosmosis. Lab on A Chip, 2013, 13, 3082.	3.1	21
74	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.	2.7	30
75	Adjustable threshold-voltage in all-inkjet-printed organic thin film transistor using double-layer dielectric structures. Thin Solid Films, 2013, 548, 576-580.	0.8	4
76	A CMOS wireless biomolecular sensing system-on-chip based on polysilicon nanowire technology. Lab on A Chip, 2013, 13, 4451.	3.1	38
77	A Printable Humidity Sensing Material Based on Conductive Polymer and Nanoparticles Composites. Japanese Journal of Applied Physics, 2013, 52, 05DA08.	0.8	13
78	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.	4.0	26
79	Photoconductive Piezoelectric Polymer Made From a Composite of P(VDF-TrFE) and TiOPc. Ferroelectrics, 2013, 446, 9-17.	0.3	11
80	GPS-Based Real-Time Guidance Information System for Marine Pier Construction. Journal of Surveying Engineering, - ASCE, 2013, 139, 84-94.	1.0	5
81	Isothermal real-time polymerase chain reaction detection of Herpes Simplex Virus Type 1 on a light-actuated digital microfluidics platform. , 2013, , .		1
82	A Fully Integrated Humidity Sensor System-on-Chip Fabricated by Micro-Stamping Technology. Sensors, 2012, 12, 11592-11600.	2.1	9
83	An inkjet-printed humidity sensor based on SiO <sub>2</sub> nano particle blended PEDOT:PSS films. , 2012, , .		1
84	On-chip biological patterning controlled by electrical potential. Microelectronic Engineering, 2012, 98, 711-714.	1.1	1
85	The heterogeneous sensor system on chip. , 2012, , .		0
86	Towards transparent electronics: fabrication of an organic transistor with a wide bandgap polymer. Journal of Materials Chemistry, 2012, 22, 57-59.	6.7	5
87	Sub-fM DNA sensitivity by self-aligned maskless thin-film transistor-based SoC bioelectronics. , 2012, , .		1
88	A sensor-merged oscillator-based readout circuit for pizeo-resistive sensing applications. , 2012, , .		0
89	A fully integrated hepatitis B virus DNA detection SoC based on monolithic polysilicon nanowire CMOS process. , 2012, , .		9
90	Low-cost and ultra-sensitive poly-Si nanowire biosensor for Hepatitis B Virus (HBV) DNA detection. , 2012, , .		1

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91	Development of a photoconductive piezoelectronic material from composite of P(VDF-TrFE) and TiOPc. , 2012, , .		4
92	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
93	Inkjet-Printed Organic Field-Effect Transistor by Using Composite Semiconductor Material of Carbon Nanoparticles and Poly(3-Hexylthiophene). Journal of Nanotechnology, 2011, 2011, 1-7.	1.5	14
94	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.	0.8	24
95	High-Precision Ultrasonic Ranging System Platform Based on Peak-Detected Self-Interference Technique. IEEE Transactions on Instrumentation and Measurement, 2011, 60, 3775-3780.	2.4	17
96	The configurable-biomolecular nano pattern controlled by surface potential. Microelectronic Engineering, 2011, 88, 1785-1788.	1.1	1
97	A statistical nanomechanism of biomolecular patterning actuated by surface potential. Journal of Applied Physics, 2011, 109, .	1.1	3
98	Quality assessment for LiDAR point cloud registration using in-situ conjugate features. , 2011, , .		2
99	High Efficient Synchronization-On-Demand Protocol of IEEE802.15.4 Wireless Sensor Network for Construction Monitoring. , 2011, , .		0
100	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
101	Statistical properties of agent-based models in markets with continuous double auction mechanism. Physica A: Statistical Mechanics and Its Applications, 2010, 389, 1699-1707.	1.2	21
102	Nanomechanics of Biomolecular Motor Proteins in Micromachined Structures. , 2010, , .		0
103	Predicting the stochastic guiding of kinesin-driven microtubules in microfabricated tracks: A statistical-mechanics-based modeling approach. Physical Review E, 2010, 81, 011919.	0.8	6
104	Low-Power and High-Sensitivity Humidity Sensor Using Fe-Al-Polyaniline Blends. IEEE Sensors Journal, 2010, 10, 1142-1146.	2.4	8
105	Poly-Silicon Nanowire FET Chemical Sensor. , 2010, , .		1
106	Polysilicon nanowire chemical sensor based on CMOS standard process. , 2008, , .		0
107	Self-Contained, Biomolecular Motor-Driven Protein Sorting and Concentrating in an Ultrasensitive Microfluidic Chip. Nano Letters, 2008, 8, 1041-1046.	4.5	104
108	Efficient Designs for Powering Microscale Devices with Nanoscale Biomolecular Motors. Small, 2006, 2, 281-287.	5.2	52

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109	PDMS-based opto-fluidic micro flow cytometer with two-color, multi-angle fluorescence detection capability using PIN photodiodes. <i>Sensors and Actuators B: Chemical</i> , 2004, 98, 356-367.	4.0	176
110	A High Performance Doppler Interferometer for Advanced Optical Storage Systems. <i>Japanese Journal of Applied Physics</i> , 1999, 38, 1730-1741.	0.8	47
111	New Tools for Structural Testing: Piezoelectric Impact Hammers and Acceleration Rate Sensors. <i>Journal of Guidance, Control, and Dynamics</i> , 1998, 21, 692-697.	1.6	5